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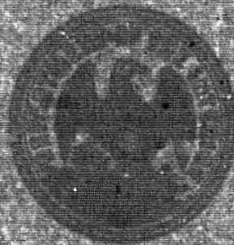
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PRESENT STATUS OF DRAWING AND ART  
IN THE ELEMENTARY AND SECONDARY  
SCHOOLS OF THE UNITED STATES

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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, D. C., October 11, 1913.*

SIR: There is a general demand for information in regard to the condition of drawing and art in the elementary and secondary schools of this and other countries. In partial response to this demand Mr. Royal Bailey Farnum, specialist in drawing and handwork in the New York State Education Department, has, at my request, prepared the manuscript transmitted herewith, showing the status of drawing and art in the schools of the United States. I recommend that the manuscript be published as a bulletin of the Bureau of Education. I hope to be able to submit later a manuscript embodying the results of a thorough investigation of this subject in other countries.

Respectfully submitted.

P. P. CLAXTON,  
*Commissioner.*

THE SECRETARY OF THE INTERIOR.

## PRELATORY NOTE.

In preparing this monograph the author has tried to present material which will not only be available for future reference, but also for immediate and practical use. A number of representative outlines have therefore been reprinted.

In gathering the subject matter which has been included, the author wishes to express his grateful appreciation for the prompt and generous response from every person appealed to, without exception. Though some material was not available, and a number found it impossible to materially assist in the work, yet all offered cordial assistance and were kind enough to make some response. Such is the spirit, of the drawing teacher and supervisor.

For data used in writing the *Historical Development of Drawing*, the volumes on "Art and Industry," edited by Isaac Edwards Clarke and published by the United States Bureau of Education, and "Art Education in the Public Schools of the United States," edited by James Parton Haney, were consulted.

Special acknowledgment is due those supervisors and teachers who freely offered the use of their writings, outlines, and photographs which make this publication one of national significance, for it represents the thought of the leaders in art education of this country. Further acknowledgments are recorded in footnotes throughout the bulletin.

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## PRESENT STATUS OF DRAWING AND ART IN THE ELEMENTARY AND SECONDARY SCHOOLS OF THE UNITED STATES.

### A. HISTORICAL DEVELOPMENT.

When, in the light of the present day and our modern educational views, one stops to contemplate the early struggle which accompanied the entrance of drawing as a regular subject in the school curriculum, it seems incredible to think that any conflict should ever have existed. What is now considered so essential for the training and development of every child was, somewhat less than two centuries ago, practically unheard of. It is interesting to note that there was at an early date a growing conviction that drawing should become a part of elementary studies and should be introduced upon a practical basis. No less an authority than Benjamin Franklin advocated the subject as early as 1740, when in his "Proposed hints for an Academy" he says:

As to their studies, it would be well if they could be taught *everything* that is useful and *everything* that is ornamental. But art is long and their time is short. It is therefore proposed that they learn those things that are likely to be *most useful* and *most ornamental*, regard being had to the several professions for which they are intended. All should be taught a fair hand, and swift, as that is useful to all. And with it may be learned something of drawing by imitation of prints and some of the first principles of perspective, arithmetic, accounts, and some of the first principles of geometry and astronomy.<sup>1</sup>

In these mere "hints," which presaged the adoption of what was eventually to become a common-school subject in Boston and throughout the whole country, a Boston boy was outlining courses in drawing from the practical and utilitarian standpoint, "regard being had to the several professions for which they are intended," and was seeking their adoption by his fellow citizens in the public schools of Philadelphia.

Early data relative to drawing as a particular and special phase of education are necessarily brief and incomplete, but in connection with an interesting biographical sketch of a member of one of the earlier school committees of Boston, published in Barnard's *American Journal of Education* in 1861,<sup>2</sup> this subject receives some attention. It appears that William Bentley Fowle was so profoundly interested in education that he volunteered to assume temporary charge of a large boys' school in Boston upon the sudden illness of

<sup>1</sup> Barnard's Jour. of Ed., vol. 27, 1877.

<sup>2</sup> The Amer. Jour. of Ed., edited by Henry Barnard, L. L. D., Hartford, Conn.



the master. The master's subsequent death finally turned the path of Fowle's life work toward the teaching profession, and for many years he was the successful director of a prosperous school.

"Master Fowle" assumed charge of his professional duties in 1821 and shortly instituted the following innovations:<sup>1</sup>

The use of blackboards, of which he had 12; the daily drawing of maps on these blackboards and on paper and states by pupils in geography; the permitting of girls to attend this school all the year round—previous to 1790 the Boston girls were not allowed to attend school at all; from 1790 to 1821 they could attend only from April to October. \* \* \* Besides the use of blackboards in geography and in learning to write, drawing, not only of maps, but linear drawing in its simplest application to geometrical figures especially, was made a regular exercise.

Like many a modern farseeing principal, Fowle was soon to meet with reverses. Opposition to his new ideas was so strong among the older educators that in 1823 he was forced to resign. Public-spirited citizens, however, banded together, built a private school, and appointed Mr. Fowle at the head. "The Female Monitorial School" of 100 pupils was at once successful and led in 1828 "to the remodeling of the public schools, and finally to the establishment of several girls' high schools."

Drawing was naturally a part of his outline of study, the school course being supplemented by an elementary work on drawing which for the most part he translated from the French of M. Francoeur. Three editions lead to the conclusion that it met with popular approval. The second and third editions contained writings of his own, on the elements of perspective, and geometrical problems for instrumental use. Throughout the book Fowle advocated the use of the blackboard, which was at that time a novelty. Scarcity of chalk led him to put the following notice at the end of his work:

The difficulty of obtaining chalk suitable for drawing or writing on boards painted black has induced the author to procure and keep on hand a quantity of artificial French chalk, in crayons of convenient size, at 25 cents a pound. This chalk has no hard particles in it, wears well, and does not waste. Artificial chalk for slates can also be furnished at short notice.

Two marked features of his system, features which Walter Smith insisted upon later in this State work, were the use of a geometrical basis for instruction and the teaching of beginners by those not fully trained. Of this he says, in his introduction:

Even in *private* schools where drawing is taught, it is too generally the case that no regard is paid to the geometrical principles on which the art depends. \* \* \* Being ignorant of the certain rules of the art (and they are the most certain because mathematical), they (pupils) are always in leading strings, and unless endowed with uncommon genius, never originate any design, and rarely attempt to draw from nature. \* \* \* If the pupils are all taught and their drawings examined by the instructor, they will do well; but if they are likewise required to examine and correct each other's work, they will do better.

<sup>1</sup> Clarke's Art and Industry, U. S. Bureau of Education.

In the teaching of his own school he required a monitor for every six or eight scholars, the beginning group being taught by the most skillful of the next advanced group. The first or highest class would be directly under the master and would include the greatest number in any other class, all the pupils being capable of receiving advanced instruction.

Besides drawing, needlework (sewing) was introduced, the first teacher being the later well-known philanthropist, Miss Dorothy L. Dix. Probably this is one of the earliest accounts of what is now termed a form of handwork being taught in an educational institution of this country.

Appearing in the same volume of Barnard's Journal with the account of Mr. Fowle's life was a long translated article by a German, Dr. Ernest Hontschel, outlining methods of drawing instruction and emphatically stating that instruction in this important subject was the duty of all common schools.

Thus from abroad, as well as at home, pressure was being brought to bear leading toward the final introduction of industrial drawing in the public school system.

Not a little credit for the final successful outcome is due to the influence and continued efforts on the part of the editor of the journal already referred to, the Hon. Henry Barnard, distinguished as the first United States Commissioner of Education, an office created by the establishment of the U. S. Bureau of Education in 1867. He urged in addresses on industrial education throughout the country as early as 1838, the introduction of drawing as a common-school study. At that time he was editor of "The Connecticut Common School Journal" published under the direction of the board of commissioners of common schools. In the third number there appeared an extract on the "Practice of Music and Drawing in Schools" taken from a report on the Prussian schools made by a Prof. Stowe to the Ohio State Legislature in that same year of 1838. In this extract Prof. Stowe reports that, with reference to drawing and singing, the Prussian teachers—

Found the same diversity of natural talent in regard to these as in regard to reading, writing, and other branches of education; but they had never seen a child who was incapable of learning to read and draw neatly, and that, too, without taking any time which would at all interfere with, indeed, which would not actually promote, his progress in other studies.

In his editorials Mr. Barnard considers drawing almost wholly from a pedagogical standpoint and overlooks the strongest features in Walter Smith's outline, the industrial problem. However, various extracts from foreign publications on the subject strongly emphasize this point.

In Vol. IV, March, 1842, appeared an article on map-drawing, from a book published by Miss E. P. Peabody, entitled "Linear Drawing."

Miss Peabody urged its use in schools on utilitarian grounds as well as pedagogical. She, with her sister, who later married Horace Mann, was at this time giving gratuitous instruction in one of the schools of Boston and at the same time actually working out her ideas as developed in the book. A class was also organized among primary teachers, and included nearly 100. A "Primer of Reading and Drawing," by Mary T. Peabody, was the basis of instruction.

Reference was made in the same journal to a manual on the use of blackboards, published about this time by William A. Alcott. Mr. Barnard seems to think the work so valuable at a time when such boards had been "but barely introduced" that he caused it to be republished in full. One of the 19 chapters was devoted to its use in teaching drawing. In it Mr. Josiah Holbrook is cited as one who had done much in advancing the cause of drawing by publishing some three years previous a series of drawing cards, 36 in number, which were to be used as aids in the subject. The course covered lines, geometrical figures, and outlines of familiar objects.

Here, again, the industrial aspect of the work, later to be so strongly and continually emphasized, failed to be considered. However, the artistic side was by no means being neglected.

For many years Rembrandt Peale had two ideals ever before him:

"One was to paint a Washington which would be worthy of the subject and which should command the confidence of his countrymen; the other was to inaugurate a system of teaching drawing which should make it as cheap, as elementary, and as common as reading and writing."

With him rests the honor of having painted the last portrait, from life, of Washington, although far inferior to his ideals, and, in accordance with his second ambition, he left in Philadelphia the foundation for successful drawing instruction.

It was in 1810 that Peale first made the effort to try out his ideas in the public high school at an insignificant salary, for money-making was not his object. Success greeted him from the start, and "the proficiency of the students of the high school in this branch was the common remark of all intelligent educators who visited the institution." At the end of two years he became so enthused with his ideas that he offered to supervise the work in the elementary grades without charge, provided he were given the proper authorization. This generous and well-meaning offer met unexpectedly with a violent check. Some of the school board through ignorance or political reasons opposed such a scheme. Their idea that drawing stood for painting and was an accomplishment to be studied at the close of school life rather than at the beginning, found no accord with the

<sup>1</sup> Extract from letter of John S. Heat, of Philadelphia, written to Gen. John Eaton, U. S. Commissioner of Education, 1813.

proposed scheme. Peale's whole proposition was severely criticized and he himself denounced as a "charlatan." It was at his request then that a committee of investigation was appointed which not only examined his records at the high school, but consulted with educators and men of artistic and engineering professions. The opinions of these men, later printed in full, form a most interesting series of documents. It appears that a set of some 40 questions was presented to each man consulted and were in many instances quite fully answered. The questions were calculated to develop the problem of the possibility of teaching drawing and led from general to definite queries relating to the methods pursued and advantages to be gained from such a subject.

The following are interesting examples answered by the well-known artist, Mr. Thomas Sudly:

(1) Should instruction in drawing commence with drawing by the eye or with instruments?—It should by all means commence with drawing by the eye.

(2) Should instruction in drawing commence with perspective and drawing from models or with drawing from patterns?—The pupils should copy patterns first, and models afterwards.

(4) What are the things chiefly aimed at in learning to draw?—Accurate perceptions of the true forms of objects and skill of hand in imitating what is seen.

(9) Can this training of the eye and hand be gained with as much ease and certainty by beginning to draw from models before copying patterns?—It can not.

(15) Is the time given in the high school to this department (less than two hours a week) sufficient to extend the course of instruction advantageously to any other branches of drawing than pencil drawing from patterns and models?—I should think not.

The report of the committee was unanimously in favor of Peale and his drawing course, and shortly after the course was adopted in the grade schools. But the board was not unanimous and Peale was so hindered and seriously hampered in his courageous attempts that he was compelled to resign in 1844, much to his own sorrow and the regret of his many friends. The course, published in book form in 1845, and called "Graphics, the art of accurate delineation, a system of school exercises for the education of the eye and the training of the hand, an auxiliary to writing, geography, and drawing," was, notwithstanding his resignation, continued in use for many years.

Two of the main elements of Peale's system as explained by himself were as follows:

(1) The eye should be trained from early childhood to recognize the elements of form, and the earlier this training of the eye begins, the better for the education of all the perceptive faculties. The training of the eye to see form, and of the hand to imitate it, should go hand in hand, the training of the eye, however slightly preceding that of the hand.

(2) The scholar should first copy patterns and afterwards copy from nature. He should first learn free, offhand drawing, afterwards mechanical drawing.

A skeptical school board and indifferent public did not exist alone in Philadelphia. In 1848 Mr. William Minifie, in contrast to the general idea of drawing as a subject for picture painting, was teaching it as a science and making exceptional progress with his pupils in the boys' high school of Baltimore. But such efforts were not to continue longer than two years. An ignorant member of the school committee must needs install an equally ignorant favorite on the subject of industrial drawing, and for 20 years little work of practical value was accomplished.

It is interesting to note that Minifie continued to lecture on the subject and published "A Textbook of Mechanical Drawing and an Essay on the Theory of Color," and a number of addresses. In his preface he seeks to call to the attention of the public the necessity of giving opportunity for instruction in drawing as a common-school subject, and also says:

To get good designers we must take the proper means for educating, and if we should make drawing a branch of common-school education, we should have an opportunity of selecting those who evidenced superior talent for the art and at the same time, by improving the taste of all, we should create in many an appreciation of the beautiful, and consequently very much extend the consumption of art productions.

Such was the widespread influence of Minifie's works that in 1852 his textbook was introduced into "the department of art of the Government School of Design of Great Britain and is still in use in 1870."

Says Clarke:

It was no unreasonable supposition that Walter Smith, in using this textbook, had himself been trained, while attending the Government Art School of Marlborough House and South Kensington, in the very system taught by the Baltimore teacher with such success.

At about this time (1849) drawing was being introduced into the schools of Cleveland, Ohio. An early history of the public schools by the able superintendent, Andrew Freese, states that a Miss Crosby had for a few months given instruction in the "higher schools," supervising at the same time in the lower grades, but the board felt that these few months were sufficient to start the regular teachers in the work and Miss Crosby's services were no longer needed.

Contrary to the board's expectations, however, the teachers, realizing their incompetency, were compelled to take private instruction. A Mr. Shattuck was first employed, a man who had already published an excellent book on the subject. Later they sought assistance from Prof. John Brainerd, also an author of a "Course of Drawing Lessons." Prof. Brainerd showed much sympathy for the teachers and took such an interest in the work that he continued for some time to visit the classrooms and give class lessons. This was done with no thought of compensation, yet the board found such creditable work resulting in

all departments that permanent arrangements were made for retaining the services of such an able instructor, and Prof. Brainerd remained some seven or eight years.

Thus the subject of drawing was being agitated in all parts of the eastern section of the country, and many excellent projects were being attempted. As in any great movement many failures must endure before the cause is won, so drawing was constantly attacked and even repudiated for many years before it won its final and initial step in the widespread movement which was soon to sweep the whole country.

As has been shown, a number of cities had started the subject as a common study for the public schools, but it remained for Massachusetts as a State to take the first step. In the thirty-eighth chapter of the Massachusetts General Statutes, published in 1860, the following is found:

Algebra, vocal music, drawing, physiology, and hygiene shall be taught, by lecture or otherwise, in all public schools in which the school committee deem it expedient.

This is the early beginning of State action and was followed in the annual volume of laws for 1869, chapter 80, by directions sent the board of education—

to prepare a plan for free instruction, to men, women, and children in mechanical drawing, either in existing schools or in those to be established for that purpose, in all towns and cities in the Commonwealth having more than 5,000 inhabitants, and to report a definite plan therefor to the next general court.

During this same year the city of Syracuse in New York State formed an art department in the high school. Here all pupils, and others, with permission from the superintendent, received instruction in drawing, and, furthermore, classes for the city teachers were formed. The course prescribed for four years was as follows: First year—geometrical drawing; second year—perspective; third year—model and object in outline; fourth year—model and object in light and shade.

Undoubtedly the subject was attracting public interest, and the very next year (1870) we read in chapter 248 of the annual volume of Massachusetts Laws, of "An act relating to free instruction in drawing." The act is in three sections and briefly states that "industrial or mechanical" drawing may be freely taught in any city and town, and free instruction must be given in cities and towns of over 10,000 inhabitants.

This final State action was the natural climax to a long series of discussions and arguments among educational and industrial men, but the immediate steps resulted from a petition presented to the legislature in June, 1869, by a committee of prominent citizens who were not only vitally concerned in the industries of the State, but who were interested in the educational welfare of the people.

This memorable petition, indicative of the feeling of the time, is given below:

(CHAP. 80.)

RESOLVE Relating to provision for free instruction in mechanical drawing in the cities and large towns of the Commonwealth.

*Resolved*, That the board of education be directed to consider the expediency of making provision by law for giving free instruction to men, women, and children in mechanical drawing, either in existing schools or in those to be established for that purpose, in all towns of the Commonwealth having more than 5,000 inhabitants, and report a definite plan therefor to the next general court.

Approved, June 12, 1869.

Said resolve was passed in response to a petition signed by several well-known and highly respected citizens, distinguished for their interest in popular education, and for their connection with those great branches of mechanical and manufacturing industry which absorb large amounts of the capital and give employment to great numbers of the residents of the Commonwealth. The petition is as follows:

*To the honorable General Court of the State of Massachusetts:*

Your petitioners respectfully represent that every branch of manufactures in which the citizens of Massachusetts are engaged requires, in the details of the processes connected with it, some knowledge of drawing and other arts of design on the part of the skilled workmen engaged.

At the present time no wide provision is made for instruction in drawing in the public schools.

Our manufacturers therefore compete under disadvantage with the manufacturers of Europe, for in all the manufacturing countries of Europe free provision is made for instructing workmen of all classes in drawing. At this time almost all the best draftsmen in our shops are men thus trained abroad.

In England, within the last 10 years, very large additions have been made to the provisions, which were before very generous, for free public instruction of workmen in drawing. Your petitioners are assured that boys and girls by the time they are 16 years of age acquire great proficiency in mechanical drawing and in other arts of design.

We are also assured that men and women who have been long engaged in the processes of manufacture learn readily and with pleasure enough of the arts of design to assist them materially in their work.

For such reasons we ask that the board of education may be directed to report in detail to the next general court some definite plan for introducing schools for drawing or instruction in drawing free to all men, women, and children in all towns of the Commonwealth of more than 5,000 inhabitants.

And your petitioners will ever pray.

JACOB BIGELOW.	JOHN AMORY LOWELL.
J. THOS. STEVENSON.	E. B. BIGELOW.
WILLIAM A. BURKE.	FRANCIS C. LOWELL.
JAMES LAWRENCE.	JOHN H. CLIFFORD.
EDW. E. HALE.	WM. GRAY.
THEODORE LYMAN.	F. H. PEABODY.
JORDAN, MARSH & Co.	A. A. LAWRENCE & Co.

Boston, June, 1869.

Various reports of school committees throughout the State discuss at length the act of 1870, and the subject of drawing in particular,

and a marked increase of interest is evinced by these discussions. From year to year, more and more local reports take up the question and remark upon its highly successful outcome.

Other States, too, followed this movement of Massachusetts. Following an interesting annual report of Warren Johnson, State superintendent of common schools, the State of Maine took action in the year 1871 permitting free instruction to persons over 15 years of age in either day or night schools.)

Largely due to the influence of the work of the art department of Syracuse, New York State enacted in 1875 a law compelling instruction in industrial or free-hand drawing in each of the State normal schools, in at least one department of a city system, and in each "union-school free district," unless excused by the State superintendent of public instruction. It is interesting to note that, whereas in Massachusetts in 1870 the term "industrial or mechanical drawing" was used, five years later in New York it was changed to "industrial or free-hand drawing."

In Ohio the State superintendent advocated at length the introduction of drawing as a required study, but though the larger cities, Cleveland, Cincinnati, Columbus, etc., were already experimenting, no definite State action was secured.

In Connecticut, Iowa, and Wisconsin similar inaction prevailed, though here also much public interest was aroused and the cities acted individually.

Meantime, in Massachusetts the State scheme was being carefully and systematically worked out. Following the act making drawing compulsory, the State board of education applied to the legislature for an increased appropriation for the following purposes: First, to secure the services of an agent competent to direct the work in normal schools and visit and confer with city school boards; second, to provide some means for training special drawing teachers. Early in the year the school committee of Boston had corresponded through the State board subcommittee with the head master of the School of Art, in Leeds, England, with a view to procuring his services as a director of drawing for that city. During the visit of Walter Smith to look over the ground and determine for himself the character of his work, should he accept, he met with a committee of the State board and they determined to secure his services for the State work. Finally, both positions were offered, with the provision that part time be given to both and the State pay two-thirds of his salary and his traveling expenses. Prof. Smith accepted the joint service and commenced his work early in the following autumn. So the work was finally begun on a systematic basis. Mr. Smith immediately began visiting towns and cities and addressing large bodies of teachers.



He continually preached that teachers must be trained, and with that aim in view he set himself to the task of bringing about the establishment of a normal art school, for, he said:

I have recommended that, to introduce drawing into the common schools, the regular teachers should be instructed by a special teacher of drawing; that then they be required to instruct their scholars.

The incredible results of his first year's work are ably set forth in his first annual report to the State board of education in 1872. Various paragraphs under the following heads show the extent of his first year's duties: The traveling museum; Personal visits to cities; Conferences with school committees and teachers; Addresses to teachers; Normal schools; Public meetings; Examination of night classes; Exhibition of drawings in Boston; Proposed State normal art school; Purchase of casts, etc., by different cities; the South Boston School of Art; Occasional duties. Under the last head he makes reference to numerous courses of study which he made out, guides to black-board drawing, and a published work on "Art Education, Scholastic and Industrial." The praise of Col. Isaac Clarke is none too great for a man of such colossal power as Walter Smith. The mere enumeration of his first year's work, a stranger in this country, is overwhelming. Under such a leadership it is little wonder that from Massachusetts sprang the lasting fruits of art education.

During the second year of his work, in 1873, the Massachusetts Normal Art School was founded, with an appropriation of \$7,500 for its maintenance. Walter Smith was at once made director, and in turn he appointed a competent force of instructors. The school was a success from the start, and its history records the development of art education from its foundation to present times, for its graduates not only became the promoters of this work in Massachusetts, but throughout the country as well. As directors of the foremost art schools, State supervisors, city directors, editors and writers, craftsmen, painters, sculptors, and architects, the alumni of this parent school and their children of one and two generations lead in the art world of these United States to-day.

Following the advent of a school for the training of drawing teachers, the subject increased in importance and value throughout the Commonwealth. Cities began to employ specialists with most creditable results. For three years the school had an opportunity of strengthening the work so well started by the State director, when the State was called upon to exhibit her results at the Philadelphia Centennial Exposition, in 1876. When the exhibition opened—

It was found that the subject of industrial art drawing was carefully and fully illustrated by the exhibition in the gallery appropriated to them in the main building, of examples of the work done in the Normal Art School and the public schools of the State, as shown by the Massachusetts school authorities. Besides this comprehensive

showing of the working of a complete State system, there were many other similar collections of drawings by school children shown by the school authorities of towns and cities of other States, but these last were necessarily scattered in different places with the several educational exhibits, as has been stated, so that it was only possible to see them singly.<sup>1</sup>

The following report of the United States Centennial Commission, edited by Francis A. Walker and taken from Volume VIII of the Reports and Awards, group 28, best describes the art work exhibited, and shows not only the character of work throughout the country, but expresses the aims and ideals held paramount by the leaders of that time:

At the Centennial Exhibition, Massachusetts undoubtedly held first place. This is shown by the report of the judges for the educational exhibits. "On every hand and in many forms, are presented the fruits of her genius to the gaze of the enchanted visitor. In the faces of many there was a manifest bewilderment. Was this imported work selected from the famous art schools of Europe—the École des Beaux Arts, the great school of Kensington, or the noted schools of Germany and Italy? Or was it possibly done by American artists trained in those great nurseries of art? It certainly was not the work of Yankee school boys and girls with only such training as it is said they are getting in these latter days in the common schools!"

There seemed to be, however, some question as to whether the methods of teaching in Massachusetts conformed altogether to the opinions of the higher authorities. The report speaks of this as follows: "Touching the question whether the methods of art instruction employed in the Massachusetts schools are those best calculated to accomplish the object, it is proper to say that the judges were not unanimous, some being of the opinion that more time is spent in geometric drawing than is generally profitable and that much of the effort devoted to drawing from flat copy could be very advantageously applied to drawing from the round and from natural objects."

The work as covered at that time is outlined in the report as follows: "In the primary schools the pupils are trained in geometrical definitions and in the simplest principles in decorative design; in drawing with the freehand from printed copies, from memory, from dictation, and from blackboard copies, and in original composition. There is practice in proportional enlargement and reduction. Only two dimensions are represented and there is no imitative drawing of natural objects. Conventional leaves and flowers are used in some of the decorative designs.

"In the grammar schools, the work of the primary schools is continuous, but is of a much more advanced character. Plane geometrical drawing with instruments is added, and freehand drawing in outline from models and objects, prints and the actual models and objects being used in conjunction. Thus a beginning is made in representing the three dimensions pictorially. Some instruction is given in historic ornament and decorative styles. Geometry forms the basis of the work while the instruction is rational, not dogmatic.

\* \* \* \* \*

"The subjects taught in the grammar schools, with the exception of plane geometrical drawings, are continued in the high schools, the models and objects, however, being drawn in light and shade as well as in outline. More emphasis is laid upon making industrial designs for a particular purpose, as for jewelry, tiles, fans, lace, calico, prints, pottery, etc. Instrumental, perspective, and mechanical drawing are added, also drawing from the cast and from nature; also botanical analysis for industrial design and painting in water colors. The pupils are not confined to one medium, as the point, for instance, but are taught to manipulate different materials—pencil,

<sup>1</sup> Clarke, Isaac Edward. In "Art and Industry," U. S. Bureau of Education, Washington, D. C.

chalk, stump, etc. Geometry still forms the basis of the work. The instruction is varied and rational, the aim being not to make proficient in any one thing, but to impart a taste and knowledge, and a skill of universal utility."

It is interesting to note the character of work as taught in Cleveland at this time. "About one hour and a half each week is devoted to it. The pupils begin as elsewhere with the line drawings on blackboard and slate. Next they are required to draw simple objects and to describe them and their positions both in writing and orally. From this they pass to drawing objects from positions verbally dictated by the teacher and finally to drawing from the objects themselves in various positions." The course of instruction briefly detailed was somewhat as follows: "During the second school year, the children are exercised in drawing a square and a cross in perspective and in different positions. In themselves the objects are thin, and they are treated as though they had no thickness. Pupils are also exercised in writing descriptions of a square placed in two positions in answer to the following questions:

"(1) What is figure one?

"(2) Why do you say it is what you say?

"(3) What does figure two look like?

"(4) In what position does it say the object is?

"(5) What makes it look as if it were turned?

"The work is the same during the third school year.

"During the fourth school year the work is not changed, except that the square and cross are combined and a hole is cut in the square allowing more intricate arrangements.

"During the fifth school year the work of the fourth is continued.

"During the sixth school year, the square, cross, and square frame are combined in one representation.

"During the seventh year the pupils are exercised in drawing two squares (square frames), cross, and model table combined. The objects are placed in all sorts of positions.

"During the eighth school year, sundry objects, such as wheels, carts, chairs, and desks, are drawn in perspective outline. This is application of perspective principles previously learned. Written descriptions of the drawings of the cross are continued."

It will be seen that drawing was confined closely to a few geometric shapes applied to certain objects of use and for a greater part of the time, drawn with no thickness. In fact, the report condemns this work for two reasons: First, because with a systematic gradation, "It is made to depend too largely upon a single minor feature of different positions in which a square and cross (no thickness) can be placed." Second, "It may be further observed that the instruction is bad, even if it should be granted that it should begin as it does, with perspective, since it takes rectangular before circular objects."

The report in one place speaks rather disparagingly of the work of Cincinnati. The following quotation not only serves to show the ability of the judge, but the trend of the subject. "For about two years children have no practice in drawing curves, though during the second year the average age of the children is 9 years and 3 months. They are mainly exercised in drawing squares, dividing their sides proportionally and filling them with symmetrical patterns. In the second year half-tint makes its appearance and is persistently used throughout the rest of the course. When properly used, half-tint increases the pleasing effect of the drawings, but it is a great consumer of time for which it makes no adequate return. The pupils should be exercised in the uses of half-tint only enough to learn its proper application. One can not help thinking, however, that in the Cincinnati schools, more than one-half of the time devoted to drawing is spent in half-tinting."

The conclusion, as summed up by the critic, Mr. Charles B. Stetson, is one which is applicable at the present time and may be of interest to all teachers. "No one can

fail to observe after a survey of all the drawing exhibits that satisfactory results have been obtained only where drawing has been looked upon as a serious and important matter; \* \* \* where a rational and comprehensive plan, justified by the best experience and not some pretentious novelty of limited scope has been adapted and steadily followed; and where, instead of pinching in every possible way to save a few pennies, those in authority have made suitable efforts to instruct the teachers to provide the schools with proper appliances for the use of both teachers and pupils. Indeed, unless a city or town takes a broad and intelligent view of the matter and resolves to do good work, patiently waiting for the fruit in its proper season, there can be no doubt that it is better to do nothing at all with drawing."

The results of the centennial exhibit were by no means satisfactory. While cities representing the States of Ohio, Indiana, Connecticut, New Hampshire, Rhode Island, Maine, New York, New Jersey, Pennsylvania, Maryland, Michigan, Wisconsin, Illinois, Minnesota, Iowa, Missouri, Tennessee, Louisiana, and the District of Columbia displayed exhibits, there appeared to be little or no systematic teaching in the average school system. The following conclusions of Mr. Stetson serve to show the extent of acceptable work and state the general feeling with regard to the work of Massachusetts:

## CONCLUSION.

All the exhibits of elementary drawing have now been described in detail from notes taken upon the spot. It is seen that in teaching drawing in the United States several distinct and systematic plans are followed—plans of very unequal merit. Many towns and cities follow no system whatever, though they aim mainly at pictorial effect, and the drawings are usually executed from flat copies, which consist of landscapes, marine views, houses, ships, animals, birds, insects, fishes, flowers, etc., and are commonly of the most wretched character. All such drawing is worse than none. East Saginaw, Mich., appears to have striven the most zealously to obtain good results from this irrational, unprofitable method. As a State New Jersey has given it the widest welcome. Nearly all the towns in New Jersey make an exhibit of drawing, but hardly one of these exhibits shows the slightest sign of an industrial feature or of systematic instruction.

There are many cities and towns whose exhibits show that they have made a good beginning in drawing. The work done in the public schools of Indianapolis and Fort Wayne, Ind., is decidedly commendable. The exhibit made by Columbus shows that drawing is better taught in that city than anywhere else in Ohio. A large part of the display made by St. Louis is deserving of commendation; and so is the limited amount of work shown by Chicago. Milwaukee deserves great praise, and so do Washington, D. C., and Syracuse, N. Y. All things considered, however, the highest praise for much well-done work in a short time should be given to the little city of Augusta, Me. It is worthy of note that in every city or town where really commendable results have been secured the instruction displays some rational novelty that is worthy of imitation. Pittsburgh is an example of a city that has begun right, but lacks the courage to go resolutely forward. Of all the drawing exhibits made by cities, that made by Detroit is the most trivial and unpromising. The exhibits made by the cities and towns of Massachusetts are the only ones that illustrate a full and systematic course of instruction in drawing worthy to be compared with the best in similar European schools.

The effects of the exhibits were far-reaching. For the first time leaders in education and thousands of teachers were enabled to view

results of their instruction by means of comparison. Since 1821, when "Master Fowle" so ably introduced drawing in his Boston school, the subject had been receiving more and more attention and not only had gained a place in many schools but had become of equal importance with the three R's. Yet during all this time there had been no general recognized method of teaching. Some believed it of value to the industries; others considered it essential as a cultural training, and it has been shown how the professional's viewpoint was emphasized in Philadelphia. Now it was possible to compare the results of these hit-or-miss methods, and it was with much surprise that they were viewed.

In one respect at least there was some similarity throughout. The drawing commenced with dots, lines, and geometric forms, and the basic idea appeared to be to have the pupil see these forms correctly and draw them. But in most instances there was apparently a total lack of progression, through systematic steps beyond the early grades. As has been shown, Massachusetts took the lead on this score, under the able leadership of her director.

For 12 years Walter Smith carried on his task of advancing the cause of art education. His pedagogy, his pleas and arguments, his aims and ambitions, and his wonderful results are all interestingly told in his annual reports to the State board of education. Other States and cities and other supervisors and teachers turned to him or his reports for guidance. As a result of his wide experience at institutes and in school systems, he developed a set of exercises which were published and which were in great demand. Models and objects brought from England were in constant use, and these, with text-books, began to be put on the market by the firm of L. Prang & Co.

But notwithstanding his influence, his popularity, and his great ability, adverse influences gradually crept in, and the last years of his directorship were extremely trying ones. Perhaps through outside jealousies, perhaps through ignorant interference, perhaps on account of personalities the situation eventually became so complex that in July, 1882, Walter Smith ceased to hold his positions of State art director and principal of the Normal Art School, and returned to England as head master of the art department of the Technical College at Bradford. But the great work he had accomplished was destined to continue, notwithstanding the absence of the fountain head. By this time strong teachers and supervisors had been graduated from the Massachusetts Normal Art School; many courses and outlines, based, however, on the Massachusetts system were being successfully worked out; superintendents and educators throughout the country were interesting themselves, not so much with the value of drawing as a school subject, but more as to the method of presenting it.

As introduced in Massachusetts, drawing was expected to eventually so influence the industrial product that this article of manufacture would compare favorably with foreign goods. Observation and technical proficiency were the primal aims, purely for the sake of the industries. The name itself implied this, for it was termed "industrial drawing." It consisted largely of straight and curved lines and geometric forms.<sup>1</sup> In the early eighties other and equally valuable aims in drawing were proposed with success. The broader term, "art," came into prominence. Quoting from a teacher's manual published in 1882, the following ideas are set forth:

Art education, even for little children, means something more than instruction in drawing. It comprehends the cultivation of the eye, that it may perceive form; of the hand, that it may represent form graphically (drawing); of the mind, that it may receive and express ideas in regard to form. It would seem appropriate, then, that these lessons should be called "form lessons." Teachers should consider them as such, and should direct their teaching to creating in the minds of their pupils a correct conception of simple forms, rather than to giving instruction merely in drawing.

It is apparent that at this time the child, rather than the industry, was receiving greatest attention. This spirit was fostered more and more by the developing subject of child study. Furthermore, a spirit of correlation may be noted, for we read: "The connection of these form lessons with the other primary studies, language and number, should also be noted." Color study received little or no consideration at first, color names being the extent of the teaching. Now, however, some consideration of the color of nature and of color in design was being attempted; for design itself was becoming less formal and less geometric. But the awakening was hardly accomplished when in 1893 the great World's Fair at Chicago gave

<sup>1</sup> The books called "Krusi's Drawing," published by D. Appleton & Co. in 1890, were of this nature. This most interesting series on "Freehand and Industrial Drawing" by Hermann Krusi, instructor in the philosophy of education at the Normal and Training School, Oswego, N. Y., formerly teacher of drawing in the Home and Colonial Training School, London, consisted of a "Synthetic Series," an "Analytical Series," a "Perspective Series," and an "Advanced Perspective and Shading Series."

Accompanying each series was a manual for teachers which contained the "Inventive Course," a series of lessons designed to tax the inventive faculties of the pupils. The books for the pupils were called the "Applied Course," and simply applied in copy work the ideas gained from the manual. Thus each series included the "Inventive and the Applied Courses."

The following description of the series, taken from the first book, the "Inventive Course—Synthetic Series," is of much interest:

*Part I.—Synthetic Series.*—This series is designed for the primary departments of schools and for those commencing the subject of drawing. It deals with outlines only (straight and curved lines and drawing from dot to dot), and is especially calculated to stimulate the observing powers, give freedom to movement, and cultivate.

*Part II.—Analytic Series.*—This is specially adapted to the wants of the intermediate schools and to those who have acquired some skill in inventing and imitating forms. It deals with outlines, but in a more finished state than Part I, and it develops ideas of proportion and accurate division.

*Part III.—Geometric Series.*—This series introduces the laws of perspective, and hence is adapted to the more advanced classes. It deals with perfected outlines and develops the principles upon which advanced art is founded. It introduces a great variety of architectural work, and thus gains an additional value from the information which it contains.

*Part IV.—Geometric Series.*—This series deals with the principles of geometric drawing and with shading. It develops the laws of light and shade and applies them to a great variety of finished work. This series is adapted to the wants of the senior and high schools and to those who have made a considerable proficiency in drawing.

Other books published by D. Appleton & Co. at this time were Krusi's Industrial Series, Otis's Drawing Books of Landscapes and Animals; Coe's Drawing Cards and New Drawing Lessons; Coe & Shell's Elementary Drawing; and Worthens's Rudimentary Drawing.

opportunity for all to observe these newer tendencies. Here wall after wall was lined with exhibits from not only the larger cities, but small towns from all over the United States. This effect was as striking as the whole fair. Newer forms of architecture, wonderful effects of landscape gardening, fresh wonders in American sculpture and individuality in the minor arts, displayed everywhere, were but echoed in the public-school work. New and better papers, individual water colors, and constructive materials, placed on the market by growing publishing houses, had produced a marked improvement in the taste and display of the drawing work, and it was plain to be seen that the old industrial drawing had grown to a thing of the greatest educational importance.

Barely 10 years later, in 1904, a second great event, the St. Louis Exposition, commemorating the Louisiana purchase, took place. Again a wonderful advance in the development of art education was seen. The old straight-line work had almost entirely given way to the aesthetic wave of beauty which had swept the country.

Many of the effects of this desire of beauty acted to the advantage of the drawing done in the schools. This the exhibition showed in the higher grades, where the models offered were no longer the geometric or so-called type forms of a dozen years before. Everywhere appeared an effort to secure objects, interesting both in line and color, and there was an evident effort to teach color by the use of it rather than through the older rigid approach by the way of the tints and shades of a color chart.<sup>1</sup>

The drawing with the pencil continued; charcoal, crayon, and water color were much in evidence. Illustration by means of crayon and paper cutting appeared to be a favorite form of work in the primary grades. The constructive work had now become a part of the course for the drawing supervisor.

In 1876 the Russian exhibit of manual training had so stimulated the country that for the next 15 years this subject developed with great strides. Following rapidly the more gradual growth of the subject of drawing, it quickly dropped the earlier form of an unapplied exercise, much in evidence throughout Europe; and at the Columbian World's Fair exercises consisted of such objects as a coat hanger, sleeve board, box, etc. The simpler forms of handwork had, meantime, become more practical; and the early geometric shapes made of splints, clay, and cut paper gave place to folded chairs and furnishings for the doll house, weaving exercises in colored paper, and modeled nature forms.

The next decade saw still further changes, and at the St. Louis Exposition in 1904 the beginnings of the so-called arts and crafts movement appeared. By this time, too, the drawing teacher felt the need of an outlet in his work through the shop, and the manual training teacher was impressed with the need of beauty in his product. Such

<sup>1</sup> Art Education in the Public Schools of the United States, edited by James Parson Haney.

forces, working toward the same end, must of necessity approach the desired result; and furthered by the craft phase of work, such results soon appeared. Notwithstanding the early tendencies on the part of drawing and manual training teachers to work separately and quite apart from each other, the Jamestown Exposition in 1907 saw united efforts in the attempt to produce worthy industrial art products.

To assist in this direct application of the drawing, new materials were continually being introduced and old materials were being treated in new ways. Raffia, reeds, and yarns were produced for weaving; leather became at once a medium for more advanced forms of design; sheet metal and the use of the finer metals and semi-precious stones were introduced; clay was built into decorative vase forms and not only fired, but fired with glazes; the early paper models became practical paper and card board problems, involving the making and decorating of real books; and wood itself became a new medium when treated with colored stains and burning tools.

Meanwhile serious attempts were being made to introduce the subject of picture study. By means of penny prints of all the best paintings, masterpieces of sculpture, and early types of architecture, such study became not only possible, but developed with promising rapidity. The Chicago Fair first displayed the plans of such work, and each succeeding exposition showed increasing use of pictures of the masterpieces of art.

#### B. AIMS AND SCOPE IN ART TEACHING.

Such a history as the foregoing, short though it may be, is nevertheless of deep interest to the student of art education, for it serves to show how some ideas of the early advocates of drawing were shortly thrust aside, and gives conclusive evidence that others were sound and are of practical value to-day. A comparison with these early principles, as stated by Mr. Charles B. Stetson, the art critic at the Centennial Exposition of 1876, will serve to emphasize this statement:

Mr. Stetson says:

The general principles, having the approval of the safest authorities and widest experience, to which principles all instruction in elementary drawing should conform, are, unless I greatly misapprehend, as I now state them.

##### ESSENTIAL FEATURES OF GOOD INSTRUCTION IN DRAWING.

1. Drawing calls for no exceptional treatment. The instructions should conform to those general pedagogical principles which hold good in other studies. Without such conformity the best results can not be secured. No one, however skillful with the pencil, but lacking the teacher's art, can give good instruction in drawing.
2. The foundation of all instruction in drawing, whether for industrial or artistic purposes, should be laid in the forms, facts, and principles of geometry. If not so



laid, there can be no scientific certainty, but in all things there will be indecision and vagary.

3. Since the representation of two dimensions is so much simpler than the representative of three, drawing should begin with the former, not with the latter. And as the forms of plane geometry are the simplest of all forms, they should be first drawn.

4. The pictorial representation of present solids by the free hand should be carefully distinguished from the representation of absent solids by instrumental perspective. The forms of solid geometry, being the simplest of all solids, should be first drawn; and in the free-hand representation the circular solids should be taken before the plane-sided. Skill in rendering the literal form should be acquired before anything is done with light and shade.

5. The orthographic representation of the three dimensions for mechanical purposes should begin with the geometrical solids drawn as wholes, in sections, and otherwise. This being an admirable discipline for the imagination, it should be regarded not simply as a professional variety of drawing but as good for all.

6. The representation of geometrical forms should be followed by the drawing of conventional ornament and artificial objects. These are next in order of difficulty. Flat ornament, calling for the representation of only two dimensions, should precede ornament in relief.

7. The drawing of natural forms should follow, not precede, the drawing of conventional forms. Such is the order of difficulty, and such, for other reasons, is the true pedagogical order. He who has first drawn geometrical and conventional forms takes larger views of nature, gives less heed to irregular surface details, and more heed to the general form and to the great features of organic growth.

8. Elementary instruction in drawing, even if only industrial results are sought, should not wholly omit the human figure, but should take it after ornament. In no other kind of drawing is a rational pedagogical treatment so essential to success, there being so many difficulties to conquer, while the learner is so readily deceived by faulty results. For the purposes of manufactures much attention should be given to drawing the figure in unpictorial outline—that is, without perspective effects, and without light and shade.

9. While one is learning to draw, he should at the same time receive instruction in those principles of industrial design which should be observed in designing both the forms of objects and their decorations. Most of these principles are so simple that they can be readily comprehended by the youngest grammar-school pupils, and some of them by pupils even younger. The acquisition of technical skill of hand is accelerated rather than retarded by the study of design, as this adds so much to the interest of the learner.

10. Instruction in design should attend, first, to the use to which the object is to be put; next, to the material of which it is to be made; then to the proposed mode of manufacture. What is required by each should be pointed out. Every use has its peculiar requirements; a design well adapted to one material is poorly adapted to another; what can be done by one mode of manufacture is impossible by another.

11. The instruction in design should be general, not professional; the details of applied design being omitted in common schools as the details of applied arithmetic are omitted.

12. Of the four kinds of ornament—linear, conventional, imitative or pictorial, and grotesque—linear ornament should receive the first consideration, because it is the simplest.

13. The drawing of conventional ornament should precede the drawing of imitative or pictorial ornament. While both have to do with natural forms, conventional ornament attends only to regular general features, and so is the easier to draw, and the better adapted to common manufactures.

14. In conventional ornament the organic growth of the natural forms employed should be scrupulously followed. If, for example, the leaves in nature are arranged alternately upon a stem, they should not be represented in conventional ornament as growing in pairs.

15. All conventional ornament should be characterized by symmetry and rhythm. Without these there is no true ornament. The decorative unit should be first symmetrically arranged, and then rhythmically repeated. Symmetry and rhythm lend themselves in a peculiar degree to the requirements of common manufactures.

16. Elementary instruction in drawing should give little or no attention to purely imitative ornament. To say nothing on the score of questionable taste, this species of ornament does not readily lend itself to the manipulative requirements of common manufactures, whether it is applied in colors, by carving, or engraving. Nor should grotesque ornament receive more than a passing notice at this stage.

17. The study of historic ornament should form a prominent feature of elementary drawing. While the pupil is learning to draw, and is acquiring a knowledge of the general principles of decorative art, he should at the same time be taught clearly to distinguish between the great styles of ornament.

18. In the public schools the instruction in drawing, below the high-school grade, should be given by the teachers who give the instruction in the other branches. The work can be neither so well nor so cheaply done by special teachers.

19. Both for the sake of general culture and for the sake of obtaining, in the end, the best special results, the instruction should be characterized by variety in the things taught, in the materials used, and in the methods followed. There must be breadth, not narrowness. The emphasis should be laid (1) upon knowledge of principles, (2) upon rapidity of execution, (3) upon fineness of work. The very great mistake is often made of laying the main emphasis upon fineness of work, especially at the outset. Nearly all beginners, if left to themselves, draw too slowly; they think too much of nice execution, too little of the idea to be expressed.

20. The greatest care should be exercised in providing the pupils with suitable drawing materials. True economy, if economy is to be judged by results, requires that everything should be of the best when the improvement of the taste is involved. True economy also requires that the aim should be to save the time of pupils, and not a few pennies, when it comes to a choice between the two.

These principles agree or differ with our modern ideas as follows, the paragraphs numbering the same in each case:

1. Though "general pedagogical principles" may differ somewhat in our modern course of study, the statement that drawing calls for no exceptional treatment is decidedly true and can not be too strongly emphasized. That the teaching of drawing should be in conformity with the teaching of other subjects and that the teachers' viewpoint should obtain are equally true.

2. Herein modern methods greatly differ. The mechanical and unrelated geometric principles have given way to the freedom which comes from broader aims and deeper educational motives. Our present drawing being presented from the cultural as well as practical viewpoint, rather than for purely "industrial or artistic purposes," necessarily demands less mechanical exactness, though quite as much care in rendition.

3. As in other subjects, abstract problems have given place to concrete and related work of definite interest to the pupils in the several

grades. Thus the geometric form no longer commences the work in drawing, for in its place are those objects which appeal at that age to the pupil. As in the early day, two dimensions are called for at first.

4. There are still to be found evidences of the "geometric" or type solid still in use. Modern training is, however, rapidly substituting for them more interesting and often really beautiful vase forms of numerous colored glazes.

5. Here again the more practical "working drawing," made directly from the object with all necessary views, is sharing equal place with the projection of geometric solids. Imagination is stirred in other ways than this, as is shown hereafter.

6. The "conventional or historic ornament" referred to has likewise been allowed to disappear before the onward movement of the arts and crafts, which demanded original and individual suggestions for construction and applied design. And "ornament in relief" was discarded with the early copy book.

7. This is perhaps one of the most interesting of all the principles so carefully stated by Mr. Stetson. It is so diametrically opposed to our modern procedure that it is highly amusing. So completely have we digressed from those early teachings that we presume to take the liberty of making our own conventional forms from nature, which we draw first, not last. And certainly, so far as the elementary grades are concerned, the larger views of nature appear not to have been retarded, but rather strengthened.

8. The "figure" no longer becomes essential as a special phase of drawing, as the modern educator considers it beyond the average public-school age, except in a few special and advanced high-school courses. Under the head of pose drawing some figure work is taught in the grades, however, but not for the "purposes of the manufactures," but rather that the big truths of action and proportion may be studied, to be used again in the illustrative drawing.

9. This paragraph is equally applicable to-day, though Mr. Stetson might show much surprise at the changed character of the design work.

10. If the truth of this statement were more strictly adhered to to-day, the work would be greatly strengthened. These principles are now, as then, fundamental in the teaching of design.

11. This is another amusing paragraph, for our later teaching, adhering to the statement that design instruction should be general and not professional, nevertheless deals in applied design as the preferred method of procedure, even as arithmetic itself is taught.

12. Our modern school vocabulary still includes the term "conventional," but excludes all others. Modern conventional design, however, is in striking contrast to that of 1876, in that it consists to a much greater extent of individual adaptation of previously drawn

nature to given problems, whereas the earlier forms were largely dictated and copied exercises.

13 and 14. Both these statements are equally valuable for present design instruction, and should be enforced as early as possible.

15. Though such decided directions for the treatment of decorative units do not fully accord with present methods, in general this statement holds good to-day.

16. These suggestions of both "imitative" and "grotesque" ornament have been practically lost sight of for 20 years or more.

17. Many supervisors and teachers continue to plead for a return to some historic ornament, which has gradually been discarded from the crowded curriculum. This tendency is an appeal to an historical study, rather than to a return of the earlier method of tedious and painstaking copy of the great historic examples. This appeal deserves more recognition to-day.

18. The teaching of drawing in the grades by the supervisor is a matter of short duration. The truth of Mr. Stetson's statement on this matter is being repeatedly recognized.

19. Every supervisor would do well to read this paragraph and remember it in his teaching. The modern passion for exhibition work has lead directly to the aim of "fineness of work" rather than knowledge.

20. Could the early critics view the modern schoolroom, with the latest equipment and materials, they would surely feel that this last and final statement has borne fruit, for certainly in the drawing work the best of to-day is often considered none too good.

#### TWO BROAD AIMS, CULTURAL AND INDUSTRIAL.

The above comparisons hint at the general purpose of modern art teaching.

The following, taken from the most recent *Cyclopedia of Education*,<sup>1</sup> clearly defines and generally includes the reasons and aims for the teaching of drawing:

(1) Drawing is a language of form. By means of it the contours and colors of all visible objects, their structure and enrichment, and their interrelations in space may be defined and displayed. It is therefore the graphic recorder of scientific fact, the primary means of expression in the constructive and decorative arts, and the chief medium of the artist in making known his visions of beauty; hence the ability to understand and to make use of this language is of value to all.

(2) The practice of drawing promotes (a) close observation, thus insuring clear mental images, the material of thought; (b) muscular control or skill of hand, a prerequisite in the practice of any craft; (c) a knowledge of the elements of beauty, in nature and art, the basis of design, and the ground of intelligent appreciation and taste. Hence, drawing should be practiced by all.

<sup>1</sup> Bailey, Henry Turner, *Cyclopedia of Education*. Monroe.

(3) The study of drawing opens to the mind the wealth of human treasure in the form of architecture, sculpture, painting, and the various handicrafts, through which man has expressed his ideals and aspirations, and leads to a keener appreciation of nature as an inspiration to art, thus vastly increasing the pleasure and the significance of life. It should therefore be free to all.

Two broad aims have come to be universally recognized in public school drawing work, the professional or industrial, and the cultural. "Direct the energies that the results may have as practical, educational, and cultural effects as possible," says one supervisor.<sup>1</sup> In general there are two broad classes into which modern civilization may roughly be divided. They are the consumers and the producers. All people may be classed under the first, but comparatively few come under the second, and so far as the arts are concerned those few require natural endowments not allotted to the average. It were folly therefore to educate all pupils in drawing or art purely from the standpoint of the profession, the training of producers.

For the average child; then, the cultural aim is most suited, and the later educators are recognizing that "drawing for the industries," and fine technical execution are not primarily to be sought. "The object is not to get perfect results on paper, but to train the senses, mind, and hand to work together."<sup>2</sup>

In elementary schools only rudiments of the arts can be taught, such as the beginnings of free-hand drawing; simple forms of constructive work and problems in design, especially as related to common things; and an awakening of some response to beauty in nature and art.<sup>3</sup>

Such statements, coming from eminent authorities, are voiced by others as follows:

To the average citizen a century ago it meant little, but to-day the homes and industries of our great country are being molded daily into beautiful places for rest or work, and our great cities are gradually developing from ordinary commercial centers, into cities of great art and architecture, and the general laying out of the streets and buildings in a beautiful and systematic way is being encouraged. So it is left with the drawing department to instill, early, into the minds of the boys and girls, the future citizens, from the smallest child to the oldest pupil, a love of the beautiful in nature and art, a keen and accurate perception of the difference between the beautiful and ugly, a good knowledge of color harmony, and the underlying principles of modern design.<sup>4</sup>

The purpose of the work in the primary grades is to develop in the child mental, manual, aesthetic, and disciplined strength. The mental training aims to give power to invent, to see relations, the power to judge distances and to discriminate between sizes and lines. The manual training aims to give general dexterity and skill in handling special media and tools. The aesthetic training aims to create taste through knowledge of color, and through knowledge of fitness of material to purpose. The

<sup>1</sup> An. Rep., Ansonia, Conn. Daisy C. Allen, superintendent.

<sup>2</sup> Teacher's Manual—Course of Study for Common Schools of the State of Washington.

<sup>3</sup> Bergent, Walter. Fine and Industrial Arts in Elementary Schools. Ginn & Co.

<sup>4</sup> City school report, Columbus, Ohio, W. D. Campbell, supervisor.

disciplinary training aims for neatness and accuracy in execution, patience, perseverance, and obedience to direction. Summarized, drawing in the primary grades is a means and not an end; it is another form of expression for the various subjects of the curriculum; the child's interest in doing things is turned to educative account. The classroom teacher, because of this interrelation guides the child's individuality, his interest, his expanding power."<sup>1</sup>

We are rapidly learning to think of drawing, construction, and design not as special subjects, but as an integral part of a well-organized course of study in public schools, without which there is an incompleteness that nothing can supply. Our ideals in teaching should be (a) to seek progression in a pupil's training from year to year and from month to month; (b) to teach the child to think for himself and to express his ideas clearly to others; (c) to influence industrial work through teaching the principles of design and the use of materials, so that the pupil may interpret what materials become in the hands of the individual worker; why they are handled thus and so, and finally what becomes of the product, thus creating a demand for that which is best in production; (d) to gain an appreciation and expression of good taste in surroundings (in dress and the home); (e) to help the pupil to find himself and thus enable him to fit into the right place.<sup>2</sup>

#### DRAWING A GENERAL, NOT A SPECIAL, SUBJECT.

The thought of this last reference, that drawing, the manual arts, is no longer special or unusual in a school curriculum, is a further indication that the subject has completely changed from its original aspect as interpreted so largely by Walter Smith. With its broader cultural aim, it has permeated other subjects until it —

Has come to stand for much more than instruction in the delineation of form. Drawing to-day is but one chapter in the great volume which is being compiled in our public-school courses of study. We may name this volume "Art Education," and we shall find that it contains many chapters besides drawing, such as painting, design, manual training, shopwork, the crafts, domestic art, industrial education.<sup>3</sup>

Thus drawing has come to include all these branches of training and the subject has rightly been renamed "Art Education" and the "Manual Arts." The idea of general, rather than special, education prevails. Special work may be taught, but general results must be expected, reached largely through such means.

It is true that art instruction must teach children to draw. It must do this for the same reason that instruction in reading must teach children to recognize and form written words, to combine words in sentences, and to compose sentences in paragraphs for the expression of thought. Drawing is expression, just as written language is expression. But ability to draw is not the only result for which art instruction should aim. There is another result as much greater in value to the average man as the ability to enjoy good literature is greater than the ability to use grammatical speech; and that result is the ability to perceive and enjoy beauty wherever beauty is manifested. It is in its power to stimulate good taste and to open the "gate of appreciation" that art education justifies the time and money spent upon it. If we can penetrate to the homes of the children and establish there the refining influences of quiet colors, good proportions, simple, sincere architecture

<sup>1</sup> City school report, Newark, N. J., Eva E. Struble, supervisor.

<sup>2</sup> Paper by Mary B. Hyde, Pratt Institute, N. Y., director normal department.

<sup>3</sup> Paper by Bonnie E. Snow, Dept. Normal Art, N. Y. School of Fine and Applied Art.

and harmonious and appropriate furnishing, we shall have little need of reformatories and penitentiaries.<sup>1</sup>

The broad and general purpose of culture through art education may be roughly subdivided into three distinct aims which have already been quoted and which are universally agreed upon. Such an education should train (a) in expression, (b) in observation, (c) in appreciation.

#### DRAWING TRAINS EXPRESSION.

Drawing has always been considered the universal means of expression. This has been a common argument for those who have plead for its adoption in schools. To be able to express one's ideas graphically will always be of general value to humanity, but the modern trend has given rise to a much broader conception, directly in keeping with the cultural purpose. This conception deals with the child himself, his thoughts, his aims, his ideals; and the process of expression, drawing, or designing, or making is but the material effect of his inner consciousness. His expression, then, limited only by the materials at hand, comes from his quickened brain, which is the goal of all education. As an outward expression of the mental processes, the value of the study of art lies in stimulating the finest ideals and in giving command of the best means of expressing them.

Miss Snow writes:

The essential point is to present all classes of material as a basis for the exercise of the principles of design, not for the sake of design, but for the sake of establishing the *right habit of thinking*.

We have an unqualified respect for a person of "good judgment." What is good judgment? It is a thorough understanding of conditions and a definite idea of what is best to be done under the circumstances. This mental adjustment can be applied not only to the arrangement of units over a surface, but to the arrangement of furnishings in a house, to the planning of a school program, to the laying out of a garden, or to the wise management of a house full of children.

The aim of art education should be to enable the student to meet any set of conditions in the finest manner possible. Art is not representation; art is the best way of doing one's work.

Miss Emma M. Church<sup>2</sup> offers a similar interpretation which voices the ideas of the leading modern art educators:

It seems clear that the very basis and center, the pivot of the whole education process, not only in the arts, but in the sciences as well, from the first grade even to the universities, must shift from a point without, from external instruction of facts and narration of facts, to a point within the student's consciousness, which we may call interest, self-activity, love, veneration, or sense of beauty, and which can be trained alone by a conscious effort on the part of the student to think and feel nobler and to make this better self-communicable by progressively more beautiful expression in as varied forms as possible—in thought, conduct, work, and play.

<sup>1</sup> Paper by Bonnie E. Snow, Dept. Normal Art, N. Y. School of Fine and Applied Art.

<sup>2</sup> Director of School of Applied and Normal Art, Chicago; former Director, Chicago Academy of Fine Arts.

The ennobling of the emotional nature seems to be the logical initial step in the unfoldment of the moral self, and it does not seem to argue any detriment to the development of the powers of reason or of any of the intellectual faculties, but rather puts them into their natural places as a means of education and not its end, and because art is the natural means of the emotional nature's expression, and by art let us understand all of them, and because the emotional self is the origin of conduct it seems that the arts must be the first step in education that leads to a better sense of proportion and for better morals.

In the training of little children we must forget that we are specialists; we must remember that it is not our business to turn out a race of cooks, carpenters, foundrymen, picture painters, arithmetical geniuses, or what not, but rather to know that our specialties are only the different languages through which the inner self speaks and to be ready to help the child to the best use of our special art when he has something to say that can best be said in its particular terms.

#### DRAWING TRAINS OBSERVATION.

Ideas seek expression in terms of actual experience. Thus the drawing is expressive of something already seen; the design consists of units composed of original or dictated motifs made from actual objects; the project is constructed on the same general principles previously observed. Keen and accurate observation, then, is fundamental to art and is an asset in the broadest sense. It calls for close analysis and stimulates the initiative of the discoverer.

If in teaching the subject we think of it as seeing lessons, rather than drawing lessons, we may be more lenient in our demands for technical results, and if these lessons train our pupils to see the appearances as well as the realities of form and color; to cultivate their judgment regarding sizes and proportions, to teach them to study things structurally and to lead them to seek for beauty in nature and in art—with just enough of the technique of drawing to supply a means of expression—we are doing all that is possible in an expenditure of an hour a week.<sup>1</sup>

To observe a simple object of nature, to visualize it, and to recall it again by means of graphic or other expression with sufficient accuracy to produce a likeness, added to which is personality in the case of the artist, is a training of utmost value in any walk of life. Furthermore, to be able to adapt its principles or to express by means of the thing itself a new conception for a special need is to cultivate that vital and initial sense of the creative—an instinct lying dormant in the average person.

The chief aim throughout the art work is to develop in the pupils the power to respond to beauty of line, form, and color as a basis for an intelligent interest in art. On its broader or appreciative side art is not directly concerned with conduct and therefore can not be said to have a direct ethical aim. Nevertheless a sense of the beautiful and a sense of the ugly may apply to forms of conduct as well as to form and color in the realm of fine arts, and these may therefore serve as contributory influences in determining right action. There is no intention of claiming that this influence of art upon conduct is in any sense inevitable. On the contrary, there

<sup>1</sup> Miss Katherine M. Hall, supervisor of drawing, San Francisco, Cal.



may be no connection whatsoever; but it is held that the teacher of art may take advantage of opportunities to generalize the feelings of his pupil for both the beautiful and the ugly in such a way as to cause these feelings to reinforce moral conduct. It is true also that any teacher who takes the artist's view of his work may use his subject as a medium for imparting a general appreciation of appropriateness, order, simplicity, and sincerity in matters of everyday life. Therefore, while these ethical interests are clearly not wholly distinctive of art, they form for the teacher of this subject one of his great opportunities.

True appreciation of a work of art is possible only to those who have cultivated visual sensitiveness, and the surest, if not the only road to visual discrimination, lies in the direction of carefully guided practice. The effort to draw or to design leads directly to clear observation of the master efforts of the artists. Technical instruction, therefore, is given as much with a view to developing an appreciation of art as to creating proficiency. The aim is, however, to give some power of expression to all, while the few who are gifted lay a foundation upon which they can later build.

The value of art training lies far less in the acquisition of a body of facts than in the gradual growth of the power to see and to feel pleasure in beautiful relations of form and color.<sup>1</sup>

#### DRAWING TRAINS APPRECIATION.

Culture at once assumes appreciation on the part of the possessor. The finer the sense of appreciation the more elevated and refined is the quality of culture. The one, therefore, directly makes for the other, and both are attributes essential to the best education. Appreciation as applied to master creations of the artist in architecture, sculpture, painting, to the forms of minor art seen in the works of the craftsman, to nature, to the very environment of the person himself, is the third aim in art education. In other terms, art must function with life, must bring beauty into everyday living. It must come through appreciation; through the knowledge of what constitutes beauty, of how we may recognize it and of how we may obtain it. This aim is well presented by James Hall<sup>2</sup> as follows:

The chief aim throughout the art work is to develop in the pupils the power to respond to beauty of line, form, and color as a basis for an intelligent interest in art. True appreciation of a work of art is possible only to those who have cultivated visual sensitiveness, and the surest, if not the only road to visual discrimination, lies in the direction of carefully guided practice. The effort to draw or to design leads directly to clear observation of the master efforts of the artists. Technical instruction, therefore, is given as much with a view to developing an appreciation of art, as to creating proficiency. The aim is, however, to give some power of expression to all, while the few who are gifted lay a foundation upon which they can later build. The value of art training lies far less in the acquisition of a body of facts, than in the gradual growth of the power to see and to feel pleasure in beautiful relations of form and color.

Thus it will be seen that not only has the character of work changed since drawing was first introduced in the public schools, but the aims and purposes have broadened and are based on the growth and development of the child rather than on an industrial need alone. Efficiency and initiative through education, rather than a material by-

<sup>1</sup> Miss Emma M. Church.

<sup>2</sup> Former director of art, Ethical Culture School, New York City.

product, are sought. A well-developed child is preferred to the fine drawing or well-executed taboret. Miss Ball aptly sums this up when she says:

If this teaching has made our pupils more alert mentally, keener in observation, more appreciative of the beautiful, and has given them that test of education "the capacity to attack new matter in the subject"—notwithstanding the fact that all have not become able draftsmen—we may justly feel that we have accomplished as much as is possible for educational art in public schools.

#### PRIMARY GRADES.

The general purpose having been discussed it remains to briefly define the specific aims for the various educational groups. The kindergarten classes consist of children from 4 to 6 years of age. Largely based on the Froebel and Montessori systems, the work develops the larger muscles and seeks to stimulate and organize the various senses. Drawing and handwork form a large part of the work, calling into use crayon and brush, color, building blocks, paper and cardboard, and various weaving materials. The fact that the art work of this educational group is under no special supervision in most schools has led to a wide variance of opinion with regard to the aims and scope, and has therefore duplicated many times the teaching in the first grade. The fault may lie with the grade teacher, who has perhaps introduced too elementary work for pupils having the advantage of the kindergarten training, but whatever the cause the work has yet to be properly related to the first-grade subjects.

Supervisors are generally agreed that the primary grades shall develop imagination, shall train in color discrimination, and shall develop a sense of orderly arrangement and good proportion. For this purpose much time is spent in imaginative drawing, in the illustration of stories, games, and events of everyday life, in the use of various hues of color, and in simple decorative arrangements.

Mr. Sargent writes:

Technical deficiencies and lack of knowledge are evident, but a purpose other than the correction of these is more important during these years, namely, to develop a readiness to illustrate ideas, however crudely, and a habit of using drawing commonly as a language. At this time objects placed before the children serve as a means of suggesting ideas, rather than as forms which are to be correctly delineated.

The constructive work seeks the same development, and pliable materials which do not by their manipulation hinder the imaginative thought are the ones used. Thus clay, yarns, building blocks, and the sand table are the freer materials for these grades. In design, Mr. Sargent again says:

Children have a feeling for rhythmic arrangements in repeating single forms indefinitely, as in borders and surface patterns, and show considerable ingenuity in making new combinations of given elements.

## GRAMMAR GRADES.

As the child advances in years his perceptive faculties become more acute, his smaller muscles seek for greater development, and the stage of more extensive drill and practice has been reached. More truth and accuracy in observation are demanded, some originality, and a finer sense of appreciation in the use of decorative motives and materials are sought, and intelligence in the use of the harder and less pliable materials is cultivated. Training is continued to stimulate self expression. The child now becomes interested in the processes of his work, and the arts seek to promote this interest. At the same time repetition and drill for the sake of technical efficiency are urged.

Truth in representation grows with the child's discernment of conditions about him, and the work of the grammar grades develops the study of ways and means of rendering observations. The study of foreshortening and the appearance of things with reference to their position in relation to the eye enters into the course. Unlike older methods, however, principles are not taught, but rather the ability to observe keenly and to record accurately.

The construction work depends largely upon processes applicable in each grade. The elements of interest and individual demand have their bearing also. Woodwork with varied construction, metal work, leather tooling, pottery making, bookbinding, caning, and heavy cardboard construction are in use in the average schools.

In design a greater opportunity for finer discrimination is presented, and problems relate themselves to personal, home, and school needs. Fine types of objects and excellent pictures and prints are presented to the children, and a feeling of refinement in association with the better things exists. Thus the sense of appreciation is early stimulated, and from these grades continues through the high school. Mechanical drawing enters also into these grades and advances rapidly in the last two.

At the end of the grammar school the pupil leaves the eighth grade equipped with some "discriminating taste" for the better shapes in construction and the finer treatments in decorative ornament, with a developed color sense, with the ability to express his ideas with some degree of perfection in a variety of materials and ways, with an appreciation for the beauties about him and with a sane reason for it all.

## HIGH SCHOOL.

For the average pupil the aims of art work in the high school are the same as those for the grammar grades. The work simplifies itself, however, into the single purpose of training the pupil to perfect his appreciative faculties. The technic of the work has been learned in the grades; the refinement of application and the refining of judgment and taste lies with these advanced years. Finer technic is

naturally expected, but with it also a keener sense of what is best in expression through art. This involves a much broader aspect of the work than can exist with the younger children. Personal and home decoration are practically studied, the history of the arts and their relation to civilization are discussed, modern illustration with a study of reproductive processes is considered, painting, sculpture, architecture, and the crafts are studied, and civic improvement is made the basis of practical thought. These studies are developed through the needs of the individual and his social activities. Posters, costumes, illustrations for the school paper, etc., enter into the work.

#### THE PROFESSIONAL OR INDUSTRIAL TRAINING.

In addition to such work as is given for the training of the average boy or girl, many high schools offer special courses having a professional or vocational aspect. Classes are offered in the fine art of painting, the industrial arts of jewelry, pottery, costume design, millinery design, commercial design, and mechanical drawing courses, including projection, working drawing, machine drawing, cam and gear drawing, topographical drawing and architectural drawing.

Such specialization is being slowly and carefully worked out in a number of the high schools of New York State and in New York City in particular. "The Washington Irving High School (for girls) has, during the year 1912, developed work of unusual interest and merit in connection with its vocational courses in art. This school offers in addition to the minimum requirement in drawing for academic graduation, a course in the study of commercial art, organized on a basis of 19 periods a week, and continued through the second and third years of a three-year high-school course."<sup>1</sup>

Previous to this year courses were offered only in millinery and costume design, comprising two years of 19 periods a week.

In the High School of Commerce and the Commercial High School (Brooklyn) short courses in art related to the needs of the commercial student are offered.

The work is followed by all pupils for a year and a half, two periods a week. It is designed to teach the pupils to see the application of art to commercial design and to give them the power to plan an advertisement, to letter it, and to devise an harmonious color scheme.<sup>1</sup>

#### C. ORGANIZATION, METHODS, AND OUTLINES.

Education in the arts has been accomplished by (a) State directors, (b) city supervisors and their assistants, (c) high-school teachers, (d) grade teachers.

(a) Three States, Massachusetts, New York, and Pennsylvania, have directors of art education.<sup>2</sup> The State Art Society of Minne-

<sup>1</sup> Fourteenth Annual of City Superintendent of Schools, New York City, Oct. 9, 1912.

<sup>2</sup> Massachusetts, James F. Hopkins. New York, Royal B. Farnum. Pennsylvania, Ross M. Fetterolf.

sota, to which further reference is made below, has through its director been of material assistance in promoting State art education. The State director in Massachusetts is also principal of the State Normal Art School in Boston.

The methods employed by these leaders are in many respects similar and may be summed up as follows:

- (1) Personal visits to schools and classes.
- (2) Personal visits to superintendents, principals, and teachers.
- (3) Special institutes and conferences of art teachers and supervisors.
- (4) Special meetings with normal-school instructors.
- (5) Lectures and talks to teachers and to pupils.
- (6) Public addresses.
- (7) Correspondence.
- (8) Literature in the form of syllabuses and outlines.
- (9) Traveling exhibits.

In New York a system of "Regents examinations" brings to the office of the State specialist in drawing thousands of secondary-school drawings twice each year, by which much of the work is judged. As occasion demands (about once every five years) State syllabuses are prepared for elementary and secondary schools, which outline the work in an extensive though general way. All examinations are based upon these outlines, and thus the work is standardized throughout the State.

From time to time leaflets discussing special phases of the work in general are issued by the State, serving in some measure to educate the poorer-trained teachers of the smaller communities. In addition the drawing director prepares special syllabuses on the art and design of vocational courses authorized by the State. Furthermore, he has all phases of industrial art work under his supervision, and examines all candidates for special teaching in drawing.

In Massachusetts annual reports to the board of education have served to place before the public such features of the work as the director deemed most helpful from year to year.

In Pennsylvania an "expert in drawing" has been appointed only within the last two years. Consequently, but little more than a start has been made. The expert issues general plans and outlines and prepares State examinations for special drawing teachers and supervisors.

In Minnesota the direction of work relative to public schools is confined to the "State Art Society of Minnesota."<sup>1</sup> Through public speaking and traveling exhibits and literature of various kinds, the director has done much to stimulate school art and industrial work.

<sup>1</sup> Maurice I. Flagg, director.

(b) City supervisors. —Practically all of the larger cities employ a director or a supervisor of drawing. In a number of cases all the manual work and drawing is supervised under one head, while in others separate directors for each phase of the subject are employed. In the first instance the position calls for a man and one having had training in the technic and methods of both art and manual lines. Most other drawing positions engage women teachers. Only in the largest cities are men directors found employed, mainly because of the salary question. In a few instances there are two directors of equal rank, one supervising the secondary and the other supervising the elementary schools. In some smaller cities having but one high school, the supervisor directs the work of the grades. Cities of the size of Boston, Worcester, Springfield, New York, Rochester, Buffalo, Cleveland, Columbus, St. Louis, Indianapolis, Minneapolis, Denver, San Francisco, Los Angeles, etc., employ from one to two or more assistants, besides special high-school teachers.

The duties of the supervisor are largely administrative. He does little actual teaching. This fact has led to much discussion among educators. Walter Smith firmly opposed from the beginning the teaching of grade drawing by the specialist. He considered it a part of the regular teachers' work which should only be directed and outlined by the supervisor. A difference of opinion still continues. While some maintain that the supervisor, with his special training, is best fitted to teach this perplexing subject, others contend that as the grade teacher knows her pupils best, she should teach all subjects, including drawing. The fact that her normal-school training has included this subject and that the supervisor supplements this training by monthly meetings adds weight to this argument. As a matter of fact the general tendency is to turn most of the actual teaching in the classroom over to the class teacher and compel the supervisor to actually supervise.

Careful supervision includes the planning of the work for each lesson throughout the year and the actual presentation of model lessons to groups of teachers representing certain grades. The director makes out a complete list of supplies; visits and confers with classes, teachers, principals, and parents; attends special meetings, where he explains a month's work in advance; keeps various records, gathers material for exhibits, and creates a general atmosphere of art and beauty throughout the schools.

The supervisor of Newark, N. J.,<sup>1</sup> adds:

It is the province of the supervisor to discover sham in the teaching, feebleness in knowledge of subject matter, incongruity in the practical interpretation of art study; to foster ideals of fitness, dignity, and real refinement; to recognize a seed of good in the ideas of others, however crude in form, and to help to nurture the seed

<sup>1</sup> Miss Eva Struble, supervisor.

until it becomes a strong plant. Our method has included frankness and honesty in constructive criticism, model teaching, semiannual lecture meetings, local exhibits, and office instruction. Effort has been for the most part to kindle enthusiasm and regard for truth, for knowledge, and for beauty.

In cities employing assistant directors the supervisor carefully superintends their duties and holds weekly meetings for a general discussion of the condition of the work. The assistants give model lessons and generally supervise their allotted districts. Visits are made so that each class is inspected usually once in one or two months. In Worcester, Mass., "Visits are made at intervals of six weeks in grammar grades and at intervals of seven weeks in all others."<sup>1</sup>

The responsibility for the development of beauty in the lives of the thousands of public-school children through their grade teacher is great, and is not only a privilege of the supervisor, but a glorious opportunity. That the special directors of this subject recognize their responsibility is shown by the following extract:

Anyone who wishes to reach quickly the largest number of people in a community turns immediately to the public schools, and in that direction lies our opportunity. It is a mighty one and a great responsibility. Sometimes a feeling of helplessness comes over me when I think, What impression can one person hope to make upon a thousand teachers? And the next day when I see the immediate effect of a message sent out in a bulletin I tremble before the great possibilities and realize what might happen to the train of thought if I should open the switch in the wrong direction. And oh how many experimental trips we do send these grade teachers. They follow our direction so willingly, and then we call them back and start them on another track.<sup>2</sup>

(c) *High-school teachers.*—Special high-school teachers may or may not be under a supervisor, and in the small places they may even supervise the grades themselves. Their duties are confined exclusively to the classroom and consist of direct teaching of the subject.

(d) *Grade teachers.*—Grade teachers, as a rule, have their lessons carefully planned and thought out by their supervisor, and do most of the actual teaching. The quality of work depends largely on the teaching ability of the instructor and her grasp of the subject. Assuming that she is, first, a teacher, her grasp of the subject matter is dependent upon her attendance at the supervisors' meetings and her ability to read plans. The idea prevails that natural talent and peculiar training are essential to success. This is a false belief, for drawing should be, and is, in fact, rapidly being treated on a par with all other subjects. Says Mr. Sargent:

Special talent is a factor to be reckoned with in elementary drawing on the same basis as in elementary language or mathematics.<sup>3</sup>

<sup>1</sup> Edward H. Thornhill, supervisor.

<sup>2</sup> Paper on "Applied design," by Miss M. Emma Roberts, supervisor of drawing, Minneapolis.

<sup>3</sup> *Fine and Industrial Arts in Elementary Schools*, Walter Sargent.

Some schools are fitted with special drawing rooms or studios, in which case the upper grades are taught by a special instructor. This is true in Springfield, Mass.

All of the drawing in the first seven grades is taught by the room teacher. All of the eighth and ninth grade drawing is taught by special teachers in studios.<sup>1</sup>

Methods of presenting the work must necessarily vary with each teacher and with each class. The general procedure should, however, be based upon the careful development of the child. Such development has, through the study of pedagogy and psychology, come to be recognized as the foundation for all teaching, drawing not excluded; and, as in other studies, the subject of drawing is peculiarly fitted to bring out certain special attributes. The better drawing outlines are therefore arranged to unfold these qualities.

The course of study in drawing for the schools of Syracuse, N. Y.,<sup>2</sup> says:

Each lesson should be presented in the same psychological manner as the other subjects taught, developing in the child his powers of observation, memory, reasoning, and judgment, and should be completed by practical application of the problem.

And in the course of study for San Francisco<sup>3</sup> one reads:

Method in teaching should be based upon (a) a knowledge of the subject, (b) proper conditions, (c) scientific pedagogy.

The actual presentation of the subject depends to a great extent upon the phase of work in hand. . . Nature or object drawing requires a very different procedure from illustration. The first is representation through direct observation; the second is representation through imagination. The following, written by Edward H. Thornhill,<sup>4</sup> in which both topics are combined, shows, nevertheless, how different each must be when presented separately:

Our method of teaching illustrative drawing may prove interesting. A subject is selected for one week, often two. For one week the first lesson is a free interpretation by the children. No graphic help is given by the teacher, the subject being explained orally and sometimes dramatized. Lessons 2 and 3 are devoted to improving the symbols necessary to the illustration, as single-object drawings, and lesson 4 to improved arrangement of these symbols in a completed picture. Much graphic help is given by the teacher in lessons 2, 3, and 4. When the subject occupies two weeks, a similar method is employed.

As a general methods suggestion the outline for Denver, Colo.,<sup>5</sup> gives the following:

Require the entire attention of pupils when teaching. Have their hands empty. Lead them, by the exertion of their own powers, to master each new subject. Re-

<sup>1</sup> C. Edward Newell, supervisor.

<sup>2</sup> Miss M. Matilda Mielt, supervisor.

<sup>3</sup> Miss Katherine M. Ball, supervisor.

<sup>4</sup> Supervisor of drawing, Worcester, Mass.

<sup>5</sup> Charles M. Carter, director.



member that pupils acquire true conceptions of what is to be done before expression \* \* \*. First, draw after judgment; second, test by judgment; third, test by mechanical means.

Class instruction necessarily prevails in graded schools; hence the demand for the complete attention of the class. When the teacher feels "all eyes upon her," that she is talking to everyone in the room, the following instructions are given in the San Francisco outline:<sup>1</sup>

(a) The instruction should consist of a clear and definite, but concise, explanation of the exercise and its purpose, taken step by step sequentially, and illustrated by finished drawings, either on the blackboard or on paper.

(b) All principles pertaining to the subject matter involved should be discussed.

(c) All principles of technic involved in the exercise should be explained and illustrated on the blackboard.

(d) The pupils should be directed to work carefully, thoroughly, and expeditiously. The teacher should carefully hold them to a concentrated effort to accomplish the task in hand, always timing them for each part of the exercise. Otherwise they will lag and consume time unnecessarily which should be more profitably spent.

In high schools classes are usually smaller than in the grades; and with longer periods, plus greater powers of concentration upon the part of the pupils, the instructor, having had special training in this particular field, may give more individual assistance. Part of the introduction to the New York City<sup>2</sup> freehand drawing syllabus for high schools points clearly to the better methods of presenting the academic work:

The development of taste is not less important than the acquisition of skill in expression. Attention is therefore to be directed toward making these studies in art closely relate to the lives and interests of the students. The subject of design is important in this connection, and should be developed through problems drawn from attractive topics or "centers" appropriate to the school, as dress; the home; the printing office (in commercial schools); the workshop (in manual training schools).

In the discussion of these problems the pupils should be made to see that art is not merely a subject to be studied in the studio or museum, but that it exists in good form or bad in all their surroundings, and that they must continually display their taste in the commonest affairs of life.

With each problem there should be a discussion of the practical questions of color and design which it suggests and which must be decided daily by everyone. This teaching should be simple, direct, and nontechnical, the subject being shown to the pupils as something the laws of which should govern when they clothe themselves, hang a picture on a wall, set a table, deck a shop window, or print a commercial circular.

The development of each problem should be supplemented by illustrative matter prepared in the form of charts, and by much graphic illustration by the teacher. The pupils will thus be called upon not only to create beauty in their own productions, but to appraise it and to appreciate it in the work of skillful artists and craftsmen. Taste is to be developed by a continued effort to choose between forms fine and less fine.

<sup>1</sup> Miss Katherine M. Ball, supervisor.

<sup>2</sup> Dr. James Parton Haney, director.

In the technical treatment of the subject, emphasis is to be placed upon skillful and workmanlike technic. The problems should be limited in number, and each should be accompanied by practice plates, that the pupils may secure sufficient control of the media to finish the required sheets with elegance and precision. Each should be led to take pride in the completion of a set of exercises, clean and appropriately lettered, for submission for credit at the completion of the course.

In the representative work the pupils should be led to learn the principles of good construction and of good perspective, and to apply these in the criticism of their own drawings. Practice sheets or plates should precede finished drawings, and throughout the course exercises should be given in quick sketching and in memory work, to the end that each pupil may have sufficient knowledge of familiar forms and simple groups to enable him to draw these, even in the absence of the models, correctly constructed, foreshortened, well placed and arranged upon the paper. Constructive excellence and a simple technic is therefore to take precedence over elaborate compositions or water-color sketches.

The drawing room itself should be made a helpful adjunct to the teaching done in it. Its cleanliness, system, and order should be an example, and there should be frequent exhibitions of good class work and of reproductions of the work of skilled artists.

As a means of presenting the lesson the teacher uses the blackboard, charts, drawing books, and various mechanical devices for perspective, color, etc. An admirable scheme which some teachers use is large manila paper, the work being accomplished in exactly the same manner as by the children, but on a much larger scale. On such a surface the pencil, crayon, or water color may be handled as in ordinary use.

As a direct help to the class teacher, outlines are provided by the supervisor. Such outlines range from mimeographed single sheets issued once a week to 100-page pamphlets elaborately designed and profusely illustrated. They cover the field of drawing and hand work for each month throughout the year. For elementary grades all subject-matter is generally grouped and adapted to the various seasons of the year, the nature drawing coming in the fall and the spring and the object drawing coming in the winter with the construction or handwork. Many grade outlines are then subdivided with the work centering about the various holidays, occupational interests, home duties, means of locomotion and transportation, and various school subjects.

A number of examples of typical outlines designed for rural schools, elementary grades, and high schools follow. In most instances a portion only of the detailed weekly plan is given. However, a number of the outlines are complete and represent the more advanced courses of the present day.

## RURAL SCHOOL COURSES AND OUTLINES.

## MASSACHUSETTS.

A Suggested Course of Study in the Practical Arts and Drawing, Designed for the First Six Grades of Rural Schools.<sup>1</sup>

## INTRODUCTION.

The education and training of many country children end with the rural-school course, and for this reason their training should be such as to dignify and enrich life, give joy and satisfaction in the chosen occupation, whether it be in the country or city, and bring about through their instrumentality better social conditions. A knowledge of the practical arts and some ability to use drawing freely and spontaneously, as well as the appreciation of the best things in practical and aesthetic lines, are invaluable. Let the children learn the meaning of industry through actual experience in developing some school project; let them gain a knowledge of materials, their source, their preparation, their relation to industry, and the processes necessary in carrying to completion different projects; let them be brought into direct contact with life and social conditions in the schoolroom, and so gain a helpful experience and a sense of responsibility; let them find themselves through these varied experiences in the lower grades, and so be helped as they grow older, not only to find a life occupation for which they are fitted, but to have an appreciative understanding of the world of industry; let them gain a perception of proportion, direction, and form through accurate delineation, a keener appreciation of the fine arts through their own attempts to interpret in drawing, color, and design, a love of the beautiful in form and color, and a greater love of nature through direct contact; and, finally, let them develop the desire to care for themselves and help their fellows.

Three suggestive outlines are offered. These are planned to aid the teacher in the rural schools in teaching the practical arts, and drawing or the fine arts; and also to show how, with a single topic as a center, various projects may be developed, what material should be used and how the work may be adapted to a single class, or to cooperative work in several grades. This scheme is planned not necessarily to be followed, but to suggest to the teacher how any occupation or industry may be developed.

Following these outlines is a list of projects which have been successfully worked out in some of the public schools of the State. From this list may be selected those projects best suited to the diverse conditions found in rural schools. The teacher is expected to discriminate and to select from this great number the projects best adapted to the needs of her pupils and through which they will gain in experience and in efficiency. The teacher will frequently find that better results are obtained by working with the pupils in a few grades and selecting work adapted to these groups. A specified time is generally planned for each lesson, but it is realized that often much more can be accomplished by using two or more periods for one lesson, and later omitting the art period; or, again, by taking most of the work in drawing, nature, color, etc., in the spring and fall, thus leaving more time for consecutive lessons in the practical arts in the winter months. The teacher should nevertheless see that each study has its time allotment.

## MATERIALS AND EQUIPMENT FROM WHICH A SELECTION MAY BE MADE.

## Household Arts.

A "packing-box equipment" for cooking may be secured at from \$1.50 to \$4 for each pupil. For such a purpose a large packing box, or two or three smaller ones may be procured, and shelves and hooks put in by the boys of the higher grades. If a box can not be had, a cabinet with shelves may be constructed. When the

<sup>1</sup> Prepared by Charles F. Whitney, Salem State Normal School; Mabel B. Soper, Bridgewater State Normal; Frederick W. Reid, Framingham State Normal; with the cooperation of other teachers of practical arts and drawing in the normal schools of Massachusetts.

above-mentioned equipment can not be obtained, the following cooking equipment may be secured at any town or village store:

*For a class of 12, working in 4 groups.*

1 large oil stove, or	12 small bowls or sauce dishes.
4 small stoves.	1 potato masher.
4 asbestos mats.	12 pottle pans.
4 mixing bowls.	2 graters.
12 stone baking cups.	4 strainers.
12 cups and saucers.	4 match boxes made in the school.
12 plates.	4 soap dishes.
4 pie plates.	4 salt shakers.
4 measuring cups.	4 pepper shakers.
1 flour sifter.	1 large pitcher.
1 large egg beater.	4 small pitchers.
4 tumbler egg beaters.	4 double boilers.
1 wire whip.	1 teakettle.
12 case knives.	1 soap shaker.
12 forks.	4 rolling pins.
4 paring knives.	4 molding boards made by the boys.
4 small saucepans.	4 vegetable brushes.
12 tablespoons.	4 scrubbing brush.
12 teaspoons.	1 cake tin.
4 wooden spoons.	1 drummer.
1 large covered stewpan.	1 dishpan.
1 frying pan.	1 tank for hot water.
2 baking bowls, 1 pint.	Glass jars with covers for spices and other supplies.
2 baking bowls, 1 quart.	Dishcloths, wipes, and sink cloths may be made from salt, flour, and sugar sacks, or from crash, in the sewing class.
4 baking tins.	
1 sugar bowl.	
1 can opener.	

This equipment for 12 will cost about \$24.

Wash bench which may be made by the boys, washtubs, scrubbing boards, wringer, ironing boards made by the boys, irons, clothesline, clotheshorse, clothespins, soap, broom, mop, dustpan and brush.

Felt, raffia, reeds Nos. 2, 3, 6, 8, willow and cat-tail rushes, corn husks, wooden bases for baskets, splints, glue, jute, twine, yarn, spools, toy knitters, cardboard and wooden looms made by the older children, pins, needles.

Knitting cotton Nos. 4, 6, 8, large wooden needles. Such needles may be whittled and sandpapered by the boys.

Salt bags, flour and sugar sacks, grain bags—many of which will be furnished by the children. Checked gingham, cotton, linen, serim, burlap, tape, braid, scissors, thimbles, needles, darning and tape needles, tape measure, sewing cotton, linen thread, floss and darning cotton.

#### Industrial Arts.

Clay, plasticine, slate, glass or enamel cloth.

Pressboard, strawboard, or bookbinders' board, construction paper, Indian craft paper, wrapping paper, cover papers, vellum, linen or crash, paste, glue and brush, knife, needles, linen thread and tape, bricks and boards for press. Good tools may be made from toothbrush or nailbrush handles by filing down the broken end to a rounded or chisel point.

Thin wood, salt-fish boxes, thin packing boxes, chalk boxes and cigar boxes are excellent for whittling. Native woods, planed pine boards and studding. If a bench is needed, one may be constructed by the older boys from heavy boards and studding.

Knife.  
Hammer, 12-ounce, M. ydole, bell-faced.  
Mallet.  
Nails.  
Brads.  
Try square, 6-inch, Stanley.  
Chisel,  $\frac{3}{4}$  and 1 inch short bit-socket firmer.  
Brace, 8-inch.  
Set of single-cut auger bits.  
Set of nail bits.  
Screw driver, 8-inch.

Countersink.  
Backsaw.  
Cut-off saw, 23-inch, 10 points.  
Ripsaw, 24-inch, 8 points.  
Jack plane, 14-inch, Stanley.  
Block plane.  
Compass, 6-inch.  
Stains.  
Sandpaper.  
Oilstone, coarse India.

## The Garden.

Procure such tools as the children are familiar with about the home.

Spade.	Trowel.	Flowerpots.
Rake.	Fork.	Watering pots.
Hoe.	Stakes.	Wheelbarrow.
Shovel.	Twine.	

Make window boxes and boxes for hotbeds. Secure old window sash and heavy boards for constructing hotbeds.

## Drawing and Fine Arts.

Hard and soft lead pencils. Colored crayons, 6 colors, brown and black. Water-color boxes, 6 standard colors, black, No. 7 brush. Water cups, which may be brought from home. Rule, compass, seissors, drawing kits, dyes for stenciling. There is a great variety of dyes to be had. Good results are obtained by using common oil colors reduced with turpentine and put on very thinly with stiff brush. Stencil paper, cover papers, manila, white and gray drawing papers, paste made by the children, pictures for picture study.

## BOOKS, MAGAZINES AND REFERENCE.

Excellent magazines, manuals, and books of instruction may be secured from publishers and school-supply houses. The construction papers, drawing papers, colors, and other materials are also furnished by school-supply houses.

- Bulletins of the Massachusetts State Board of Education.
- School Arts Book, School Arts Publishing Co., Boston.
- Publications by Teachers College, Columbia University, N. Y.
- School and Society, John Dewey, University of Chicago.
- A Modern School, Paul H. Hanus, Macmillan.
- Working with the Hands, Booker T. Washington, Doubleday, Page & Co.
- Cooking for Beginners, Marlon Harland.
- Elements of Theory and Practice of Cooking, Williams & Fisher.
- The Boston Cook Book, Fannie Merritt Farnier.
- School Needlework, Hapgood.
- Library of Work and Play, Doubleday, Page & Co.
- Occupations for Little Fingers, Sage and Cooley, Scribner.
- How to Make Baskets, Mary White, Doubleday, Page & Co.
- Farmers Bulletins, United States Department of Agriculture, Washington, D. C.
- Woodworking for Beginners, Wheeler, Putnam.
- Handwork in Wood, Noys.
- Woodworking for Amateur Craftsmen, Ira S. Griffith.
- Popular Mechanics.
- Popular Electricity.
- Printing Copies, The Fanning Printing Co., Newton Upper Falls, Mass.
- Helpful suggestions and illustrations will be found in publications of Prang Co., Atkinson, Mentzer & Co.

## OUTLINE NO. 1.

## SCHOOL HOUSEKEEPING.

## Introduction and Instructions.

The following outline is offered as a suggestion to the teacher of the rural school to assist her to make the school a home center for the pupils, and to help her to meet some of the difficult problems which confront her.

The projects are merely suggestive. The teacher may substitute others, which she may select from the general outline or from her own experience, in order that she may obtain the following results:

1. A clean, orderly, well-arranged, and attractive schoolroom, with material and appliances in the places designed for them.
2. "Occupation" or "busy work" for younger and older pupils.
3. An orderly and properly served luncheon for the children who remain through the noon hour.
4. Properly cared for and arranged school work and papers.

Some of the work is planned to be done by the class as a whole, some by groups of children, some by individuals.

A portion of the work listed under "Household arts" and "Industrial arts," and all of that under "Gardening" is to be carried out throughout the year by groups of children or by individuals, requiring no class instruction except assignment of work and general direction.

It is proposed that for this purpose five minutes be given each morning after the school is assembled and before the opening exercises, twenty minutes or more at the noon hour to those children who remain for luncheon, and five minutes at the end of school; also, as "busy work" to individuals during the school session. Helpful suggestions for carrying out this plan may be gained by reading "The Montessori Method," Frederick A. Stokes, publisher, chapter on "Exercises in Practical Life," pp. 122, 123; also pp. 243-267.

A description of the projects suggested in the outline is appended. The articles made may become the property of the individual children at the end of the school year.

#### PRACTICAL ARTS.

*Household arts.*—Assign different occupations to different children for one week; change the assignments each week; encourage competition in efficiency:

1. Care of the schoolroom; such as cleaning blackboards, sweeping, dusting, arranging materials on shelves, filing school work, preparing materials for the day's use, caring for desks.
2. Orderly arrangement and serving of the school luncheon on a doily on pupil's desk, or, if possible, at a well-laid large table for all children; clearing of luncheon; care of food, dishes, and doilies. Make cocoa, sandwiches, soup. Prepare rice or cereal. Do laundry work connected with the luncheons.
3. Make towels, napkins, doilies, napkin rings, dusters, duster bags, woven mats, flowerpot and bottle covers.

*Gardening.*—1. Care for pots or boxes of flowering plants, each child to be responsible for one box or pot. Place pots on shelves or desk on braided raffia mats, and cover pots with baskets made of reed, rush, or raffia knotted or woven.

2. Raise bulbs in water in bottles or jars. Cover jars with raffia knotted covers to hang in window.

3. Care for seeds in pots and boxes. Plants raised to be transplanted into the ground at home or at school.

4. Care of vegetable-producing plants. These may be substituted for the flowering plants.

Select from General Gardening or Practical Science outline plants best to cultivate. Have each one of the older children record in notebook progress and peculiarity of each plant grown.

*Industrial arts.*—Some of the work in the industrial arts may be prepared by the older, and completed by the younger, children. The older children may make by themselves patterns and looms from clearly drawn and explained drawings on the blackboard; the younger children may use these patterns to draw around and cut out, and return to older pupils to complete the article. The younger children may use these looms to weave upon.

## Projects in Paper and Cardboard.

Envelopes or covers for drawings or school papers.  
 Envelopes for seeds.  
 Boxes for materials used in arithmetic work.  
 Boxes for pencils and penholders.  
 Blotter pads for desks.  
 Notebook covers.  
 Cover and repair books and maps.

## Work in Wood

For older boys, while girls are sewing or cooking.  
 Shelves or cabinets for holding materials.  
 Boxes for shoes, rubbers, or other purposes, such as seeds or waste.  
 Simple repairing about the schoolroom.

## DRAWING OR FINE ARTS.

All drawings not used for definite purposes should be filed, and labeled with the pupil's name and date. At the end of the term or year these should be arranged and made up into books. This may be done by mounting each drawing on paper of uniform size, or by allowing an inch margin at left of each drawing, and sewing or pasting together at that side.

## Pictorial Drawing.

## 1. Nature—Fall.

*Younger children.*—Draw in crayon or in water color simple grasses, twigs, berries.  
*Older children.*—Draw in pencil, crayon, or water color the life history of one plant at different seasons of the year, or several studies of one plant in different positions. Draw in notebook when needed to illustrate text.

## 2. Object.—Winter and spring.

*Younger children.*—Select two or more stories called for in General Reading outline. Draw objects suggested by the stories. Draw from the object, from pictures, and by filling in forms made by drawing around patterns furnished by the older children. Draw these objects from memory.

*Older children.*—Select some subject of general interest connected with literature or history, such as colonial life, the Japanese, etc., and draw objects suggested by such study. Draw from the object, from pictures, and from memory. Draw and cut out forms for the younger children to use, such as trees, animals, common objects. Draw objects in notebook when needed to illustrate text.

## 3. Illustrative.—Winter and spring.

*Younger children.*—Use drawings made from objects, etc., and assemble in a built-up picture, which may be used as a decorative frieze around the schoolroom; the background, or setting, for the same, to be drawn by the older children and the teacher. Build up individual pictures in the same way (as "busy work," using the same method as built-up words with letters).

Draw story illustrations from memory.

*Older children.*—Study and draw pictures settings from pictures and nature. Assist the younger children to build up story pictures.

Illustrate notebook or other school papers with simple picture designs.

## Picture Study.

Study pictures illustrating stories called for in General Reading outline. Use for this when possible reproductions of pictures by famous artists.

## Industrial Drawing and Design.

## 1. Industrial drawing.

*Younger children.*—Draw lines with ruler and to measure.

Draw around patterns for projects in practical arts.

Draw patterns to measure when possible.

Draw simple geometric figures.

*Older children.*—Draw plans and elevations for the projects in practical arts.

Make patterns of same for younger children.

Learn to read working drawings.

Make illustrations, diagrams, maps, etc., for work in arithmetic, history, geography.

Print a good Roman alphabet to use in labeling school work.

## 2. Design (when needed).

*Younger children.*—Design stripe pattern to apply to weaving.

Frame nature drawing (decorative arrangement) to mount and apply to booklet, cover of drawings, or to calendars, etc.

*Older children.*—Design simple line and area patterns to apply to envelope for drawings or to booklets.

Design and print titles and labels.

## 3. Color (throughout the year).

*Younger children.*—Match colors.

Paint circles or squares to form scales to illustrate: (1) Standards; (2) light and dark; (3) hues.

*Older children.*—Match colors. Paint scales to illustrate use of complements: 7 degrees of light and dark; 5 degrees of bright and dull.

Apply color knowledge and practice to all subjects where color is required.

## DESCRIPTION OF PROJECTS.

## Recipes.

## Cocoa.

Order of lesson: Natural history; preparation for market; chemical composition (roasted); value as food; preparation for table.

For 6 cups of cocoa use 2 tablespoons of the powder, 2 to 3 tablespoons of sugar, 1 pint scalded milk, 1 pint boiling water.

Mix cocoa and sugar in a saucepan, stir in water gradually and boil five minutes; add milk and cook five minutes longer, or until smooth and free from any raw taste. Beat well with a Dover egg beater to prevent albuminous skin from forming.

*Individual recipe.*—One teaspoon powdered cocoa, 1 teaspoon sugar,  $\frac{1}{4}$  cup boiling water,  $\frac{1}{4}$  cup scalded milk. Follow above directions.

## Boiled rice.

One cup rice, 1 teaspoon salt, 2 quarts water.

Put water to boil in a kettle. Pick over and wash rice in several waters. When the water boils rapidly, drop in the rice slowly, in order not to stop the boiling. If the grains settle to the bottom, stir them gently with a fork. Boil rapidly, uncovered, from 20 to 30 minutes, or until the grains can be crushed between thumb and finger. Add salt when nearly done. Turn into a strainer to drain, rinse with hot water, and dry in the serving dish in the oven (with door open) for a few minutes. Each grain should be white, soft, and distinct, the motion of the water keeping them separate, and the washing and rinsing removing loose starch that would tend to stick them together.



*Cream of pea soup.*

One can peas, 1 quart boiling water, 1 pint milk, 1 teaspoon salt,  $\frac{1}{2}$  teaspoon pepper,  $\frac{1}{2}$  to 1 teaspoon sugar (more for old peas than for young), 2 tablespoons butter, 2 tablespoons flour, 1 small onion.

Let the onion, peas, and water simmer for about 20 minutes, or until soft. When peas are very soft, mash onion and peas through a strainer; add the scalded milk. Rub the flour and butter together, stir into them a little of the soup, and turn this mixture back into the soup. Stir till smooth, add seasoning and sugar, and serve with croutons.

*Sandwiches.*

Discuss kinds of bread for making good sandwiches.

Discuss kinds of fillings for sandwiches.

Make sandwiches.

*Lettuce sandwiches.*

Cut end slice from bread. Spread each slice with creamed butter before cutting. Remove crusts, put slices together in pairs, and cut in squares, oblongs, or triangles. Put crisp lettuce leaves between these slices; 1 teaspoon mayonnaise dressing on each leaf may be added.

*Egg sandwiches.*

Spread bread as in lettuce sandwiches. Use hard cooked eggs. Chop white very fine, press yolks through a strainer. Mix yolks and whites, and season with salt and pepper; mix with cream salad dressing, and spread between slices of bread.

*Paste for all lines of school work.*

Two cupfuls of flour and 2 cupfuls of cold water mixed thoroughly. Boil, adding gradually 3 to 5 cupfuls of boiling water, stirring constantly. When smooth and thick add 2 teaspoonfuls of powdered alum and 1 of oil of cloves. Pour into small tumblers or jars with covers.

*Sewing Projects.**Dusters.*

**Materials:** Blue and white checked gingham; blue or white silkateen; basting thread; needles; thimble; scissors.

Make square of material according to width of cloth. Turn half-inch hem and baste. Sew down hem by running stitch, using the checks as guides for length and evenness of stitches.

N. B.—Cheesecloth may be used, in which a thread should be drawn as a guide for the sewing.

*Bags.*

**Materials:** Same gingham as duster, or Russia crash may be substituted; silkateen.

Sew up sides of bags with backstitch and overcast seam. Turn down hem at top and sew. Draw up with braided cord made of double strands of silkateen. A simple stencil design may be applied to the bags when made of crash.

*Doilies.*

**Materials:** White crash or linen; blue or red silkateen; size suitable for desk top.

Turn 1-inch hem all around. Sew with outline stitch. Draw initial letter of school in corner. Outline.

Instead of the above finish the hem may be hemstitched in heavy linen thread or colored silkateen by the older girls.

If a large table is used, plan a cover of suitable size; or a simple linen scarf.

## Raffia and Reed Projects.

*Napkin ring.*

Materials: Celluloid or tag paper of desired length and width; raffia; large tapestry needle.

Cut a strip of celluloid or strong tag paper 6 inches or 7 inches long and  $1\frac{1}{2}$  inches or 2 inches wide. Cut half across the strip 1 inch from each end and on opposite sides. Interlock the ends, forming a ring. Paste or sew firmly. Fasten a piece of raffia when pasting, then wind or buttonhole stitch all around. Fasten the end firmly. A second type of ring may be made by weaving in and out around the ring with raffia of another color. Still another is made by making two rings  $\frac{1}{2}$  inch or  $\frac{3}{4}$  inch wide and catching these together with any fancy stitch.

*Woven mats.*

Materials: Strawboard or box cover; string or warp thread; raffia.

1. *Round mat.*—Make circular cardboard loom of the desired size, using circle maker or compass. Divide into thirds, and each of these sections into either thirds or fifths, according to the size of the mat desired. At these divisions notch the outside edge of loom. Sew a loop through the center of cardboard, or fasten a small brass ring. Tie to this the string and carry across the loom through a notch, back through the next notch and through the ring. Continue around the loom, fastening the end firmly. Beginning at the center, weave with raffia, using simple over and under weave. Remove by breaking the outer edge of loom.

2. *Oblong or square mat.*—Same as above, making loom an oblong or square and stringing raffia across. Weave with raffia strands over and under—a new strand for each weaving thread, making a fringe across sides. Tie fringe to prevent raveling.

*Flowerpot covers or baskets.*

How to make Baskets, by Mary White, Doubleday, Page & Co., Publishers.

The Modern Priscilla, Publication on Basketry.

As a detailed description of these projects would be too long for the present publication, the above books may be used for necessary instruction in the subject.

*Netted covers for bottles or jars.*

The common square knot or the Solomon's knot may be used for these projects.

Tie the strands of raffia to a small brass ring which forms center of bottom of the cover. Knot the raffia in rows around the bottle or jar. When covered, braid the ends of raffia into loops. Run braided raffia cord through these for a hanger.

## Paper and Cardboard Projects.

For this work use "Paper and Cardboard Construction," by George F. Buxton and Fred L. Curran, published by the Menomonie Press, Menomonie, Wis.; also "Teachers' College" syllabus of "Course in Elementary Bookbinding and Bookmaking," by Sarah J. Freeman, A. B., published by Teachers College, Columbia University, N. Y.

All projects suggested fully described, with drawings, in these books.

## Woodworking Projects.

For this work see "Handicraft for Handy Boys," by A. Neely Hall, published by Lothrop, Lee & Shepard Co., and "Boy Craftsman," by same author and publisher.

The projects suggested may be made from grocery boxes, packing boxes, etc. If a bench equipment is furnished, other projects can be worked out, such as coat hangers, book racks, pen trays, letter racks.

## OUTLINE NO 2.

The topics selected for the practical arts, and for drawing or the fine arts, may be in a great degree dictated by the environment, the local requirements, and the occupations or industries of the vicinity. These may be farming, dairying, market gardening, lumbering, fishing, manufacturing of some type, or the village store; and from any of these centers may grow a great variety of projects, which, though varying in character, are a unit in interest and value.

The children in the school are to be the producers and consumers of a great variety of products. The work in the school must give them insight into useful service on the farm, in the shop or office, or in the home. It must give them a practical experience, and help them to become intelligent, discriminating, happy, and efficient citizens.

The topic selected for this outline is the garden, and the projects recommended are developed from this center. Some are valuable to the school as a whole, some deal with work for the girls, others with work for the boys, and still others are for individual use. The work is not arranged by grades, but the teacher will find projects adapted to both younger and older children; others where cooperation is invaluable; projects in which the younger pupils may assist the older; and, again, where the older children may prepare work for and teach the younger. It is hoped that a careful selection from these projects will develop in the children a school spirit, a type of citizenship, a skill of hand and eye, and give a fund of general information which will prove of value in their present work, and form a background for future development. As previously stated, this is an outline not necessarily to be followed, but to serve as suggestive for any topic selected.

## THE SCHOOL OR HOME GARDEN.

September and October.

For details in garden work, materials and tools required in all grades throughout the year, consult "Agricultural Projects for Elementary Schools," a bulletin of the Massachusetts State Board of Education. Copies may be procured on application. See also catalogue of projects in practical arts; and in "Farmers' Bulletin," United States Department of Agriculture, Washington, D. C. Consult Practical Science and Geography outlines.

*Practical arts.*

*Household arts.*—Prepare, cook, and serve products of the school garden. These may serve as part of the noon lunches: Make sandwiches; make salads, jellies and marmalade; can fruits and vegetables.

From washed grain bagging or burlap cut the shapes desired, and sew into bags for vegetables and bulbs.

Make knotted raffia coverings for bottles or tumblers to hold slips or other nature specimens.

*Industrial arts.*—Make cardboard envelopes or boxes for seeds. Make wooden boxes for packing fruits and vegetables. Do necessary repairing about the garden.

*Drawing or fine arts.*

*Color.*—In the study of drawing or the fine arts connected with the garden, let the work be governed by the cycle of the year. In the fall months study the colors found in the garden; review spectrum, standard, tone, scale, hue and other color terms; paint scales of the colors found in flowers and fruits; or paint color families; study simple harmonies of color.

*Pictorial drawing.*—Collect and arrange flowers and sprays from the garden. Draw from these specimens. Draw from seed pods, grasses, flowers, leaves, sprays, fruits and trees, using pencil outline, colored crayon, or water colors.

*Industrial drawing.*—Measure and draw patterns for labels, envelopes, and boxes for seeds; portfolios for nature drawings; books for records and accounts; working drawings for packing boxes. These are to be constructed in the work in practical arts.

*Picture study.*—The Gleaners, Millet; Return to the Farm, Troyon; The Haymakers, Adam.

Collect and mount pictures suggestive of the garden to use in booklets or as illustrative of language work.

November and December.

*Practical arts.*

*Household arts.*—Continue the work in preparing, cooking, and serving the products of the garden. Make soups, cook vegetables. Make pumpkin pies for Thanksgiving. Make paste for bookbinding problems.

*Industrial arts.*—Model from clay or plasticine the fruits and vegetables from the garden.

Construct labels, tags, cases, or books for drawings, reports, records, and clippings relating to the garden.

*Drawing or fine arts.*

*Color.*—Relate the color study to the drawing of vegetables. Work out color harmonies to be applied in design for projects in practical arts.

*Pictorial drawing.*—Make sketches of single objects and groups. Let the groups suggest garden occupations, and include the box or basket used in gathering the fruits or vegetables. Draw from sprays of evergreens with cones. Freehand paper cutting of fruits, vegetables, and garden occupations.

*Design.*—Make units of design from the flower or vegetable sketches made in September and October, these designs to be applied to projects in the practical arts. Cut and mount nature drawings; plan arrangement, upon the sheet, space divisions and proper margins. These may be made into books in the practical arts work as records of the garden projects.

January and February.

*Practical arts.*

*Household arts.*—Continue the study of vegetables, fruits, and nuts; prepare, cook, and serve, in connection with the noon lunches. From washed grain bagging or burlap cut and sew mats for covering hotbeds.

*Industrial arts.*—Make wooden labels, sticks, trellises, seed flats, dibbers, seed cases, tool frames, for use in the spring garden work.

*Drawing or fine arts.*

*Color.*—Continue the study of harmony in color, working out a color scheme for a flower garden.

*Pictorial drawing.*—Draw trees in skeleton, studying growth and branching; use brush and ink. Make quick sketches of objects to be constructed in the practical arts. Make memory drawings of familiar objects.

*Industrial drawing.*—Make quick working drawings, full size or to scale, of objects to be constructed from wood: seed cases, tool frames, boxes. Draw a plan of the school grounds; locate walks and building, and draw to scale plans for flower and vegetable gardens. Consult arithmetic and practical arts outlines. Draw alphabets, numbers and titles for use on books, labels, portfolios, and working drawings.

March and April.

*Practical arts.*

*Household arts.*—Make soups from peas, beans, potatoes. Cook potatoes in various ways. Bake beans or peas for noon lunches.

*Industrial arts.*—Make gathering baskets, with or without handles. Weave melon baskets for use in the flower garden. Repair fences, trellises, and walks. Make hot-beds from heavy boards and old window sash. Make plant sticks, labels, and trellises.

*Drawing or fine arts.*

*Color.*—Continue the color study, relating it to the planning of the garden, nature work, and work in design.

*Pictorial drawing.*—Draw from early spring flowers. Draw from twigs from the garden, studying them in various stages of development. For object drawing use garden tools, flower pots, watering pots, and wheelbarrow. Make quick illustrative sketches and careful drawings. Study foreshortening of circular faces.

*Picture study.*—Cattle Plowing, Bonheur; The Shepherdess, Le Rolle; Going to Labor, Troyon; The Sower, Millet.

Collect and mount pictures relating to spring.

May and June.

*Practical arts.*

*Household arts.*—Prepare and serve radishes, dandelions, and other greens, carrots, lettuce, peas, or other early products, as part of the noon lunches. Make salads and salad dressings.

*Industrial arts.*—Model birds, nests, and eggs. Continue weaving of the gathering baskets. Make bird house.

*Drawing or fine arts.*

*Color.*—Review fall color study. Work out harmonies to be applied to projects in practical arts.

*Pictorial drawing.*—Draw from seedlings. Make careful detail study of several stages of growth, showing the life history. Draw from birds, nests, butterflies. Sketch trees in mass.

*Design.*—Plan designs for nature book covers, using nature units of design—flowers, leaves, or butterflies. The books are to contain the drawings and written work connected with the garden study, and are to be bound in the work in practical arts. Free-hand paper cutting of garden occupations.

*Picture study.*—The Lake, Corot; The Ford, Corot; The Willows, Corot.

NOTE.—Arrange for an occasional parents' day or a school festival. Decorate the room with the garden products, exhibit school work, plan appropriate exercises, and make programs.

OUTLINE NO. 3.

AN OUTLINE FOR PRACTICAL ARTS AND DRAWING, BASED ON SEASONS, FESTIVALS, AND HOLIDAYS.

Project 1.—Seed Box for the Harvest.

*Method of construction.*—Younger children should use construction paper 8 by 8 inches. Fold this into 16 2-inch squares. Cut on outside 2-inch folds of two opposite sides, leaving the bottom of the box four squares in size. Fold up the sides, making the box one square in depth. Paste together, making two opposite ends of double thickness. For the cover, cut paper 8½ by 8½ inches. Proceed as above. Notch the center of two opposite sides so that the box may be pulled out readily. See recipe for paste in school housekeeping outline.

Project 2.—Wooden Gathering Box for the Harvest or Waste Box for the Garden.

*Materials needed.*—The box to be 2 feet deep and 1 foot 3 inches square will require North Carolina pine sheathing ½ inch thick, two brass or iron handles, 3 dozen 1½-inch

round-headed screws, 3 dozen  $\frac{1}{4}$ -inch brads, hammer, crosscut saw, rip saw, plane, screw driver, and miter box.

*Method of construction.*—Cut enough boards 2 feet  $\frac{3}{4}$  inch long for the sides. Make first the two sides, to which the handles are to be attached, making them 1 foot  $4\frac{1}{2}$  inches wide, allowing for tongue and groove, which must be cut off the exposed corners.

With rip saw split board 5 feet 6 inches long in the middle. Plane groove and tongue from the strips. Cut into 1 foot 3 inch lengths and miter ends. Of these eight pieces make two frames. Nail sheathing to frames, placing one frame  $\frac{3}{4}$  inch from ends of boards, the other flush with ends. Make bottom of box 1 foot 3 inches square and fit into end where  $\frac{3}{4}$  inch was left. Screw bottom in, screw sides together, and attach handles. Stain with appropriate color.

*Note.*—A good stain may be made by using dry colors and thinning with turpentine and a little linseed oil. Rub on with rags of cotton waste. Immediate rubbing after applying the stain will lighten the tone. If a finish is required, rub with floor wax. Ten cents' worth of dry color will make a large quantity of stain. Suitable projects for the girls will be found in other outlines.

#### Project 3.—Menu Cards for Halloween.

*Method of construction.*—Collect and study menu cards. Discuss size and proportions. Make the cards of the desired size, from white cardboard or construction paper. Decorate with pumpkin, jack-o'-lantern, or other units appropriate to the day. These cards may be used as place cards, with appropriate quotations printed by the children.

#### Project 4.—Thanksgiving Candy Box.

*Method of construction.*—Make this a measurement lesson. Construct from heavy, colored construction paper. Decide upon the best size; for example, the box is to be 5 inches long, 3 inches wide, and  $1\frac{1}{2}$  inches deep. Cut sheets of paper 8 by 6 inches. Fold in  $1\frac{1}{2}$  inches on all four sides. Cut  $1\frac{1}{2}$ -inch folds on the long sides. Paste  $1\frac{1}{2}$ -inch squares to  $1\frac{1}{2}$  by 3 inch oblongs, forming the ends of the box. Draw similar pattern for the cover, making the top  $5\frac{1}{2}$  by  $3\frac{1}{2}$  inches, and allowing  $\frac{1}{2}$  inch or 1 inch for the depth. Fold and paste as in the box. A simple geometric design may be applied to the cover. Use colored crayons or water colors.

#### Project 5.—Christmas-Tree Decorations—Cornucopia.

*Method of construction.*—Cut construction paper 5 inches, 6 inches, or 8 inches square. Fold upon one diagonal. Fold two adjacent edges of the square to meet this diagonal. These two edges may be laced, forming a square cornucopia, or the two smallest faces may be overlapped and pasted, forming a triangular cornucopia. Before lacing or pasting, the upper corner of the cornucopia may be folded, and a simple bisymmetrical unit may be cut. Hang with raffia or worsted.

#### Project 6.—Christmas-Tree Decorations—Hanging Basket.

*Method of construction.*—Fold a 6-inch or 8-inch square of construction paper upon its diameters. Fold the corners to the center, forming a smaller square. Turn the corners back to the edges of this smaller square. Cut one diameter of the original square to the center, then from the end of this same diameter cut off one triangle. Fold and paste so as to form a triangular basket. Tie the corners with raffia or worsted, leaving ends to be tied above, as a hanger. In connection with the Christmas projects, wind festoons, hangings, and wreaths for schoolroom decoration.

## Project 7.—Log-House for Lincoln's or Washington's Birthday.

*Method of construction.*—Collect twigs for building the house. Use plasticine or putty to hold the twigs together. Use raffia, hay, or straw for a thatched roof. This problem should be definitely planned and drawn upon paper, with dimensions marked. Let the children cut the sticks the desired lengths for the sides, ends, and the walls between the windows and doors. Notch the sticks where overlapping at the corners of the building. Fill the cracks with plasticine or putty. Make a ridge pole, fastening it to the gables with strong pins. Arrange the thatch, allowing it to hang over the eaves. Doors and shutters may be made of heavy cardboard or thin wood. These buildings may be arranged in the sand table with appropriate surroundings. They will also be found useful in the object drawing by the older children.

## Project 8.—Valentines and Envelopes.

*Method of construction.*—A box valentine of any size may be made by the same method as the seed box (Project 1), using appropriate valentine decorations.

Still another box may be made as above, cutting the corners of the box down  $\frac{1}{2}$  inch. These laps are folded out at right angles, and a heart of sufficient size to cover the top of the box is pasted to them. From the center of this heart is cut a smaller concentric heart, which swings back upon its pasteboard hinge, forming the cover.

Make valentines from paper, folded once, or folded like a three or four wing screen, and decorated.

Make envelopes from patterns obtained from any common envelope, altering the measurements to suit the present need.

## Project 9.—Tree Booklet for Arbor Day.

*Method of construction.*—Use heavy cardboard or bookbinder's board of suitable size for covers. Cut one strip of vellum or curtain canvas 2 inches longer than the covers and 1 inch wider than the necessary binding. Paste cardboard to vellum, leaving a space between the covers sufficient to hold the necessary pages. Turn in the remaining 1 inch of vellum at either end and paste. Cut a second strip of vellum, equally wide and 1 inch shorter; to this sew the pages to be bound. Cut cover paper, allowing 1 inch to turn in at top, bottom, and front edges of the cover. Cut triangular pieces from the outer corners of the cover paper, and when pasting endeavor to butt edges. Paste the piece of vellum to which the pages have been sewed as a lining to the first piece of vellum. Cut the lining paper for the covers  $\frac{1}{2}$  inch smaller than the cardboard, and paste the lining overlapping the vellum. Decorate the cover with tree units of a darker tone than the paper, printing the title carefully. The book may be used for notes on tree study, sketches of trees, for mounting leaves, for photographs of trees, or for program of Arbor Day exercises.

## Project 10.—Program for Parents' Day.

*Method of construction.*—Fold medium weight construction paper for cover, with the inside program  $\frac{1}{2}$  inch smaller. Design simple border, which may be drawn 1 inch in from the edges of the cover; or plan simple unit for cover design. Print carefully, well placed, the words "Parents' Day," and the date. Print program and insert, sewing the pages to the cover.

## DRAWING OR FINE ARTS.

## Projects 1-2.—The Harvest.

*Nature work.*—Draw in silhouette seed pods or fall flowers. Follow with pencil sketches, showing proportion, growth, joints, and important details. Sketch the main lines lightly, to suggest spacing and growth before painting or drawing. Draw later

in colored crayon or water color. Draw sprays with fruit or sketch vegetables, using similar method.

*Color.*—Teach color in connection with the nature work, and through this develop standards, light and dark tones, hues, and harmonies.

Project 3.—Halloween.

*Nature drawing and design.*—Draw from the pumpkin, singly or in groups. Use pencil outline and accent drawing. Later, draw in crayon or water color. Fold small squares of paper and cut pumpkin or other suggestive units of design. Apply to the practical arts projects in borders, head or tail pieces, or single units.

Project 4.—Thanksgiving.

*Paper cutting.*—Free-hand paper cutting of Thanksgiving incidents. Illustrative sketching or memory drawing for Thanksgiving.

*Design.*—Cut from squares, circles, or triangles modified units for decoration of the constructed candy box.

*Object drawing.*—Draw from familiar objects used on the Thanksgiving table. Use single objects or simple groups.

Projects 5-6.—Christmas.

*Nature drawing.*—Draw in colored crayons from sprays of holly or other evergreens.

*Design.*—Fold small square or oblong papers and cut holly or Christmas tree units of design to be applied to cornucopia, hanging baskets, or Christmas cards.

*Object drawing.*—Make illustrative sketches of Christmas stories. Make object drawings from toys and Christmas gifts brought by children. The younger children will draw in silhouette or outline in profile, but the older children should study the objects carefully, introducing foreshortening.

Project 7.—Lincoln's or Washington's Birthday.

*Object drawing.*—Having constructed the log house as suggested in the Practical Arts outline, let the children draw from the constructed object. The younger children will draw from a front or side view, while the older children attempt other positions.

*Illustrative sketching.*—Illustrative sketches in colored crayon may be made to use with written stories.

Project 8.—Valentine's Day.

*Illustrative sketching.*—The children make drawings illustrating sending valentines. This may include the drawing of fences, walls, gateways, doorways, and action drawing of figures.

*Object drawing.*—Letter box.

*Design.*—Units from flowers, hearts, the carrier pigeon, etc. Apply to valentines and boxes constructed in the practical arts, using simple color harmonies.

Project 9.—Arbor Day.

*Nature drawing.*—Draw from trees in skeleton; later, in mass. Make lists of trees found in the vicinity and illustrate.

*Design.*—Cut tree units to be applied to tree booklet for Arbor Day. Cut from acorn, cone, fruit, and nut units for the same purpose. Study lettering of simple type, to be applied to covers and title pages.

Project 10.—Parents' Day.

Apply design, coloring, and lettering to programs, as in previous projects. Collect and arrange flowers, evergreens, or ferns for schoolroom decoration. Plan and letter class or school banners or shield.



## CATALOGUE OR LIST OF PROJECTS.

## PRACTICAL ARTS.

## Younger Children.

*Household arts.*--The younger children should assist in many simple ways in the cooking, serving, sewing, and weaving, while the older children do the actual work. Much will be learned through observation. Some may be able to make cocoa, toast bread, and cook eggs. They may help in collecting and measuring materials for cooking; wash and wipe dishes; care for the table; assist older children in the care of the foods; wind balls of worsted or jute; sweep and dust the room; care for erasers and blackboards; care for teacher's desk and books.

They may plan a division of labor in caring for a doll's house; set the table; arrange the furniture, make the beds, etc.

Make knotted cords, braided cords, jump ropes, reins, twine ball holders, hammocks, table mats, rugs, napkin rings, baskets, holders, broom cases, sewing sets and bags, blotters, handkerchief cases, slipper bags, sponge bags, broom bags, washcloths, towels, mats for flower pots and vases of flowers. Make doll's outfit. Crochet mats, reins, drawing strings for bags.

*NOTE.*--The objects mentioned include knotting, braiding, winding, simple over and under weaving, running stitch, over and over stitch, hemming, and darning. The materials found useful are twine, jute, worsted, flax, wicking, raffia, cotton cloth, linen, coarse canvas, crash, checked gingham, felt, and burlap. The projects involve the use of toy knitters, cardboard or wooden looms, thimbles, needles, thread, pins, and scissors.

There is ample opportunity, even in the simplest weaving or stitches, to apply simple borders or units of design. Threads may be drawn, and colored raffia or jute darned in their place as borders.

The teacher should call the attention of the children to the sources of materials which enter into the cooking, sewing, and weaving; she should relate the work to home geography, with instructions upon staples which enter into much of the work in practical arts. The arithmetic should also be closely related to these projects.

*Industrial arts.*--Model conventional objects; balls, fruits, vegetables, trees, birds, animals, people, toys, vase forms, tiles, bowls, bridges, walls, and gateways. Model objects, either singly or in combination, to illustrate any school work.

*NOTE.*--The modeling of simple objects is generally done without the use of tools, upon a slate, board, glass, or piece of enamel cloth. The materials are clay or plasticine.

Useful objects made from thin cardboard or construction papers; circle makers, tags, tickets, bookmarks, book covers, booklets to contain nature drawings, folders, envelopes, magazine covers, portfolios, pencil boxes, looms, sewing sets, including needle book, scissors case, and pin case; work boxes or baskets, calendars, checker boards, toys, toy furniture; circus tents, animal cages and wagons for circus; buildings illustrative of history, peoples, their industries and occupations, such as the Japanese, the Indian, the Eskimo, and the Arab; lumbering, fishing, storekeeping. Objects made from six-~~ten~~ square or oblong foundation; furniture carts, boxes, baskets, cups, boats; houses, barns, chicken coops, windmills, and other buildings.

In addition to the above the children may build houses, barns, bridges, towers, castles, pyramids, and other objects from blocks sawed by the pupils in the higher grades, or from bricks made of cement or plaster.

*NOTE.*--Many of the objects mentioned above may be used in the home or the school; in connection with other studies, for the recognition of holidays or festivals, and in the sand table, as illustrative of peoples, their customs, occupations, and industries. The materials necessary are thin and heavy cardboard, construction paper, Indian craft paper or tag board, paste (which may be made by the children in the higher grades, see recipe in School Housekeeping outline), scissors, wooden toothpicks, rulers, pencils, colored crayons, wooden blocks. The object may be made by folding from given patterns or by measuring.

*School or home garden.*—The work in gardening should be based definitely upon the project method. Full directions for such work are published in Bulletin No. 1 of the Massachusetts State Board of Education. These will be furnished on application.

The following lists are not necessarily to be followed literally, and do not prevent the growing of additional crops when so desired, or the growing of crops listed in the lower grades, by pupils of the higher grades as additional projects.

Projects: Grow at least three of these crops; radishes, lettuce, sweet peas, carrots, beets, potatoes.

#### Older Children.

*Household arts.*—See work for younger children. Let the children become familiar with the relation between cereals, vegetables, and fruits. Study the corn or some other garden product; how it is used in the green stage; when ripe, where and how it is milled. Study the foods in their relation to the human body. Discover what the mothers of the children are cooking; what the children can cook, what materials they can best procure. Have them cook cereals, make soups, make sandwiches, study the care and preparation of vegetables, make salads, make simple desserts, plan and serve lunches. The children should care for cooking equipment, clean silver, and do the laundry work connected with lunches and cooking lessons.

The following projects are recommended:

In the fall term, cook vegetables; can tomatoes and other vegetables, pears and other fruits; make jellies, marmalade, and preserves; make pickles; make apple sauce, and bake apples.

In the winter term, study the baking of breads; make toast, white bread, baking-powder biscuits, corn bread, muffins; make pies, cake, apple cake, gingerbread, fritters, griddlecakes; study stews, chowders, dried legume and vegetable soups; study starchy foods for puddings; rice, bread, and steamed puddings; tapioca and macaroni; make candies for Christmas and other holidays; make chocolate or cocoa.

In the spring term, study proteid cooking; care of milk; make butter, cheese, junket pudding, and cook eggs; study salad making, using the early vegetables—lettuce, radishes, greens, and cress; make ice creams; cook and serve cooperative lunches of foods furnished by the children. Let one child bring milk, another eggs, another butter, another vegetables, or other foods.

Weave reed or raffia mats for flowerpots or table use; reed workbaskets, flower baskets, or wastebaskets. Net school bags, insect nets and hammocks. Crochet or knit table mats, reefs, trimmings, scarfs, socks, and caps.

Keep clothing in repair. Make sheets, pillowcases, sash curtains, bureau scarfs, cushions, face cloths, soap bags, shoe bags, sponge bags, traveling cases. Study care of bedroom and bedding; airing and cleaning. Make articles for the dining room—napkins, doilies, tablecloths. Care of table linen. Make caps and aprons for work in cooking.

Dye fabrics for bureau scarfs, sash curtains, and doilies, using materials collected in the garden or vicinity.

NOTE.—These projects involve weaving, netting, crocheting and knitting, basting, stitching, half-back stitching, hemming, running, overcasting, overhanding, gathering, hemstitching, and buttonhole making. The materials necessary will be found in the preceding list of "materials and equipment."

*Industrial arts.*—Useful objects made from construction papers, cardboard, vellum, and wood: Portfolios, stationery cases, letter files, cardcases, clipping cases, desk equipment, boxes for spools, seeds, pencils, and other apparatus, books and book covers, using pamphlet vellum, Japanese bindings. Repair maps.

Make plant sticks and labels, crochet and knitting needles from wooden skewers; select and assemble die cut parts of toys and other objects; mount and put together. Make toy racks, fishline-winders, boats, carts, wheelbarrows, weather vanes, bean-bag boards, ring toss, other games and toys; bird houses, handles for insect nets, boxes

for vegetables, window boxes, window screens, weather strips, mop and broom racks, tool racks, shelves for closets, packing case or box, with shelves for cooking equipment. Saw building blocks for younger children; saw and plane boards to cover desks for cooking tables.

Make general repairs, such as putting up clothes hooks, shelves, brackets, moldings, sandpapering, scraping, painting, varnishing; repairing fences, walks, trellises; shingling; care of tools, sharpening and cleaning tools and knives.

NOTE.—These projects involve measuring, cutting, folding, pasting, sewing, and simple processes in woodworking. The materials necessary are listed under "materials and equipment."

*School or home garden.*—See suggestions of work for younger children.

Projects: Grow at least three of these crops—Cucumber, spinach, corn, tomatoes, Swiss chard, alfalfa, kohlrabi.

#### DRAWING OF THE FINE ARTS.

##### Younger Children.

*Pictorial drawing. 1. Nature.*—Draw from simple grasses and sedges. Draw around leaves, match the colors. Study twigs, the branching, growth, etc. Draw from wild and cultivated flowers; fruits and vegetables in outline, mass, and color. Figures expressing action; birds and animals.

*2. Object.*—Draw from garden implements, toys, and familiar or interesting objects. Objects suggested by the seasons, holidays, gifts, occupations, etc. Frequent memory sketches in pencil or color.

*3. Illustrative.*—Illustrative sketches of stories, peoples, incidents, holidays, folk lore, games, occupations; free-hand paper cutting for similar purposes; mount cuttings. Build up pictures from cuttings by children.

*Industrial drawing and design.*—Draw lines, angles, and simple geometric figures upon blackboard and upon paper. Free-hand cutting of similar figures. Rule lines and figures. Measure and rule 1 inch, 1 foot, 1 yard,  $\frac{1}{2}$  inch,  $\frac{1}{2}$  foot,  $\frac{1}{2}$  yard. (See Arithmetic and Practical Arts outlines.) Draw around given patterns, or make original patterns of any objects to be constructed in practical arts. Make patterns for labels, tags, banners, or shields. Use circle maker. Print alphabets.

Copy arrangements or original units of design, using lines, plants, butterflies, animals, and modified geometric figures. Use these designs when needed on invitation cards, portfolios, Christmas cards, menu cards, bags, etc.

*Color.*—The spectrum. Recognition and naming of standard colors. Use the prism. Scales of light and dark. Match colors found in nature study. Use colored crayon or water colors in painting scales and in nature work and design.

*Picture study.*—Feeding her Birds, First Steps, Millet; Children of the Shell, Murillo; Select animal pictures, Landseer or Rosa Bonheur; A Primary School in Brittany, Geoffrey; Spring, The Ford, Corot; Historic pictures, Broughton.

NOTE.—See Practical Arts outline for projects involving nature drawing and object drawing. Relate the fine arts work to such projects. Use silhouette, pencil outline, water color, colored crayon for drawing and design. Even with the youngest children, the teacher should aim to cultivate an appreciation of good spacing, mounting, and arrangement of drawing upon the sheet.

##### Older Children.

*Pictorial drawing. 1. Nature.*—See outline for younger children and projects in Practical Arts outline. Draw bulbs, vegetables, fruits. Make sketches of the life history of some plant. Study and illustrate seed dispersal. Draw foreshortened flowers, leaves, and sprays. Careful detail study of one subject—branching joints, leaves, buds, flowers, fruit. Draw trees in mass and skeleton. Mount drawings with

suitable margins, or plan arrangement within a given space. Consult Garden and Practical Science outlines.

2. *Object.*—Draw single objects or very simple groups of two objects showing foreshortened circular and rectilinear faces, giving attention to composition, grouping, size, and proportion of objects and spaces. Let groups illustrate some topic—cooking, sewing, gardening, fishing, the druggist, means of lighting the home, etc.

3. *Illustrative.*—Illustrated booklet centered around a given topic—the garden, the workshop, the kitchen, the store, etc. Illustrative sketches for stories, history, literature, geography, arithmetic, industries, peoples. Make up pages of illustrations and text into booklets in the work in the practical arts. Continue study of landscape settings and elements for illustrative pictures.

*Industrial drawing and design.*—Continue work planned for the lower grades, the new measurement being  $\frac{1}{4}$  inch,  $\frac{1}{2}$  inch,  $\frac{3}{4}$  inch. Simple geometric problems. Draw patterns for projects suggested in the Practical Arts outline. Draw two or more views, actual size or to scale, for other projects. Draw diagrams for flower or vegetable gardens. Plan school and home garden to scale.

Study order, balance, symmetry, rhythm. Modify squares, oblongs, or circles; cut these from folded paper and apply to penwipers, blotters, etc. Simple units and border designs for sewing, weaving, darning, and stenciling. Make frequent use of squared or ruled paper. Make designs from nature units to be used on the clipping cases, seed cases, book covers, portfolios, and blotters. Study lettering for marking linen, book covers, title pages, posters, labels, Christmas cards, etc. Free-hand lettering used for decorative purposes. Symbolic units for holidays and festivals. Cut stencils for use in practical arts.

*Color.*—Review color work of lower grades. Study hues, values, scales, color families, harmonies. Paint scales of complementary colors and neutrals. Plan color schemes for stenciling, darning, and other projects in practical arts. Plan color schemes for flower gardens. Apply color study to work in nature and design. Dye raffia or fabrics, using materials collected about the school building. Select colors for painting and tinting walls and woolwork of the schoolroom.

*Picture study.*—See picture study for younger children. Collect and mount pictures of historic value. Pictures of Egypt, Assyria, Greece, Rome, Christian and Moorish architecture, etc.; relate to work in history and geography. Select and mount pictures for schoolroom decoration.

*NOTE.*—In nature drawing use silhouette, pencil outline, colored crayon, or water color. Let the character of the subject dictate the medium to be used in representation. Give care and thought to arrangement upon the sheet, spacing, growth, movement, and detail in nature work; careful composition and representation in object drawing; good quality of line. Make large sketches upon the board, giving attention to size, shape, position.

In the industrial drawing use kits if they can be procured. Use hard pencil, and expect accurate measurements and careful drawing.

#### NEW YORK.

**Drawing Leaflet**—An outline to assist in the teaching of the elementary drawing syllabus.<sup>1</sup>

*Purpose of this leaflet.*—This outline is expected to aid those teachers of drawing who have not had the advantage of special and technical training in the subject and who, because of the ordinary demands of other subjects upon their time, are unable to develop a working plan in a subject as special and technical as is that of drawing.

*Outlines.*—The following is the minimum requirement for the first four grades, so grouped because they are not subject to examination.

<sup>1</sup> Royal B. Farnum, State specialist in drawing and hand work.

*Outline for grades 1-4.*General subjects: *Illustration. Decoration.*1 *Topics.*

- a *Illustration:* Special days, occupations, games, stories.
- b *Decoration:* Christmas booklet, valentine, bookmark, Easter card, calendar, etc.

2 *Mediums.*

- a Pencil.
- b Colored crayon.
- c Chalk and blackboard.

3 *Practice.*

- a Single objects in flat (elevation).
- b Composition—grouping.
- c Given units for design motifs to be used with reference to space arrangement and application.

4 *Pictures.*

## Grade 1.

Madonna of the Chair. Raphael.  
 The Age of Innocence. Reynolds.  
 Children of the Shell. Murillo.  
 Feeding Her Birds. Millet.  
 The First Step. Millet.  
 Hiawatha. Norris.

## Grade 2.

Return to the Farm. Troyon.  
 The Divine Shepherd. Murillo.  
 Mother and Child. Toulmouche.  
 The Drinking Trough. Dupré.  
 Interior of a Cottage. Israels.  
 Can't You Talk? Holmes.

## Grade 3.

The Balloon. Dupré.  
 Potato Planting. Millet.  
 Penelope Boothby. Reynolds.  
 Little Samuel. Reynolds.  
 Shepherd and His Flock. Bonheur.  
 Caritas. Thayer.

## Grade 4.

The Escaped Cow. Dupré.  
 Arrival of the Shepherds. Lerolle.  
 A Helping Hand. Renouf.  
 Sistine Madonna. Raphael.  
 (Madonna and Child—detail).  
 Pied Piper of Hamelin. Kaulbach.  
 Little Rose. Whistler.

5. *Aim.*

- a Facility of expression.
- b Good proportion.
- c Order in spacing and arrangement.
- d The ability to recognize in each grade six pictures and to tell who painted them.

*Explanation.*—By the term "Illustration" is meant picture making as a means of expression, not formal representation.

By "Decoration" is meant the simple arrangement called for in such a problem as the booklet, requiring the spacing of a few letters and a decorative motif copied for the purpose. There need be no attempt at original designing.

*Outline for grades 5-6.*

General subjects: *Representation. Design. Maps.*

1. *Topics.*
  - a Representation: Nature and object drawing.
  - b Design: Booklets, cards, calendars, mats, doilies, etc.
  - c Maps: Simple maps.
2. *Medium.*
  - a Pencil.
  - b Crayon.
  - c Blackboard.
3. *Practice.*
  - a Single objects in flat (elevation) and parallel perspective.
  - b Nature in mass, outline and suggested color.
  - c Original design motifs drawn on squared paper.
  - d Pencil maps.
4. *Pictures.*
  - Grade 5.
    - The Shepherdess. Lerolle.
    - End of Day. Adan.
    - Autumn. Mauve.
    - Song of the Lark. Breton.
    - The Gleaners. Millet.
    - Oath of Knighthood. Abbey.
  - Grade 6.
    - Sir Galahad. Watts.
    - The Sower. Millet.
    - The Horse Fair. Bonheur.
    - Puritans Watching for Relief Ships. Boughton.
    - Reading from Homer. Alma-Tadema.
    - Fog Warning. Homer.

5. *Aim.*
  - a Truth in observation.
  - b Continued facility in expression.
  - c Simple original decoration with application.
  - d The ability to recognize in each grade six pictures and to tell who painted them.

*Explanation.*—Drawing as a pure "Representation" begins in this simplified outline with the fifth grade and in object drawing proceeds only as far as parallel perspective. Here, too, "Decoration" becomes "Design" so far as the adaptation of a nature or geometric form on squared paper will allow.

Teachers should continually drill on the work of the previous grades which is easily correlated with the requirements for the fifth and sixth.

*Outline for grades 7-8.*

General subjects: *Drawing. Design.*

1. *Topics.*
  - a Drawing: Representation of nature and objects, mechanical drawing, science drawing, map drawing.
  - b Design: School booklets, posters, etc., problems relating directly to the home—the home center.
2. *Mediums.*

All and any applicable to the work in hand.

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3. *Practice.*

- a Objects in any position.
- b Drawing for all purposes—water color.
- c Design applied to school and home problems.

4. *Pictures.*

## Grade 7.

- Fighting Téméraire. Turner.
- Golden Stairs. Burne-Jones.
- Water Gate. Van Marcke.
- William I of Nassau. Van Dyke.
- In the Meadow. Lerolle.
- Shaw Memorial. St. Gaudens.

## Grade 8.

- Water Carrier. Millet.
- Temperance. Burne-Jones.
- The Mill. Rembrandt.
- Madonna of the Shop. Dagnan-Bouveret.
- The Haymaker. Adan.
- Medfield Meadows. Inness.

5. *Aim.*

- a A knowledge of the various methods of expression by means of drawing.
- b A knowledge of the fundamental design principles with definite application to practical problems.

*Explanation.*—"Representation" gives way to "Drawing" in the seventh grade, for now the pupil should draw free-hand or by mechanical means, as the problem demands.

Design is but another means of drawing and centers about the home. At the end of the eighth grade, pupils should be able to understand the use of the pencil, crayon, and brush and such materials as are necessary for constructive problems adaptable in schoolrooms. A high grade of technical skill is not expected, but intelligent and efficient workers should be developed.

*No limitation.*—It should be distinctly understood that no teacher is limited to this outline either to the general subjects or to their place in the grade. It is to be expected that trained teachers will do much more. As already implied, this outline is intended to assist the teacher who needs help in interpreting the present syllabus. Color study, object drawing, perspective, handwork, and a host of other topics and problems may be and should be taught as at present under the able supervisor.

## ELEMENTARY SCHOOL COURSES, OUTLINES, ETC.

## NEW YORK STATE SYLLABUS.

General course with detailed outline for first and eighth years. (Illustrated.)

## DRAWING AND ELEMENTARY HANDWORK.

The following syllabus is intended for helpful suggestion to the teacher and supervisor of the elementary grades. It is not a rigid outline to be strictly followed. It is the *child*—not the *course of study*—which should be taught.

"As the course of adult life is determined by environment, so a course of school work is determined by conditions of child life;" and as these conditions vary in different localities, so will courses of study and methods of procedure change to suit the varying conditions, though the general phases of the work will remain the same.

As will be noted, the general lines of work are summed up under the following heads:

- Nature drawing and Color.
- Constructive drawing and Design.
- Pictorial drawing and Composition.
- Plant drawing and Decoration.

One line of the work should not be abruptly taken up to the exclusion of what has gone before, but there should be an orderly progression from one phase through another, appreciation and good taste being the ideal from the beginning.

In the well-rounded course, construction should be as forcibly emphasized as the free-hand drawing, for both sides of the art work are of equal importance in the development of the child; consequently in the more specific outline which follows the general course it will be noted that "Making" is given its place throughout the year.

Again, it is not expected that any teacher will attempt *all* that is given in this syllabus. Judgment and common sense should be used, and that work most suited to local conditions should be utilized.

School and home decorations are essential topics for consideration in the schools, and for this purpose picture study has been suggested for each year. Though the work in design should mean and include the study of decoration beyond the field of the schoolroom, yet a study of pictures hardly comes under the head. At the same time, pictures constitute an important and universal means of decoration, and we should all know which are good, and why, and become familiar with as many of the best works in painting, sculpture, and architecture as possible. In no other State is there so great an opportunity offered for advantageous work along this line as in New York. The division of visual instruction with its 300,000 lantern slides, 28,000 photographs, and 1,800 wall pictures ready for loaning throughout the State should be a great help in this important phase of education and should become a working asset for every teacher.

No time allowance is specified, as this differs in various parts of the State. Also conditions may not allow of an equal amount of work in different localities, though the same time be given to it. Therefore, one should gather from the following suggestions what will help most in the allotted time.

The teacher should not feel compelled to use *only* the drawing period for that subject nor that time for drawing alone. The school period spent in drawing plants and animals as a part of the nature study work may in reality be the best sort of a drawing lesson. Correlation has been emphasized throughout the syllabus. In brief, the drawing and manual training should be made of practical use throughout the child's school life, that it may assert its educational value as a common means of expression. It should be utilized as a help in other studies; observation in the nature and object drawing should lead to a keener mental attitude in language; the study of design should mean neatness and order in the written work; the making and construction work may be used in arithmetic; and again, the arithmetic should be used in constructive design, the nature study in nature drawing, and geography in illustrative drawing. In other words, the drawing should be made of vital importance to the child, for his mental, physical, and spiritual uplift.

The following general course, including all years, is immediately followed by a more detailed outline for each year:

FOR ALL YEARS.

*Nature drawing and color—September and October.*

These months are rich in nature material. Grasses, berries, and fruits are abundant. The sequence in plant drawing is as follows:

- (1) Movement of growth and direction, as expressed in line.
- (2) Branching, as expressed in angle and division of spaces.
- (3) Proportion of parts, as expressed in mass, or relative size of flowers and leaf and stem.
- (4) Massing of plants, as expressed in silhouette, accuracy in growth, and proportion within a given space.



- (5) Foreshortening of parts rendered in two values.
- (6) Appearance of the whole as rendered in values, with great care in observation.
- (7) Structure.
- (8) Textures.
- (9) Beauty.

Each child should be provided with a specimen, otherwise interest and effective drawing are weakened and half the value of the work is lost. As in the nature syllabus so in the drawing, "Nature study that is of educative value emphasizes the study of things first hand."

*Constructive drawing and design—November, December, and January.*

In the lower grades the constructive drawing is reduced to a minimum. In the intermediate grades it receives more attention and requires greater precision. In the upper grades it demands the utmost accuracy of which the pupils are capable. Constructive terms should be made familiar from the beginning through correct use.

The problems in design in the lower grades should be selected with an eye upon the interests of children. All constructive work should be of immediate practical value; work which will last at least a week without being propped up. There is a tendency toward the making of flimsy paper objects, which violate one of the first principles of constructive design—stability. As soon as possible the teacher should bring about the best production and appreciation of good design. The spirit of Thanksgiving and Christmas should inspire the work of these months. These days of giving and receiving should bring about a genuine motive for productive effort.

The work in drawing and design should be so closely allied to language as to be part and parcel of it. This is emphasized in the English syllabus. "The teacher should make the pupil's ideas, thought, and fund of facts more full and varied, and his knowledge more definite." Drawing with the language clarifies the knowledge.

*Pictorial drawing and composition—February and March.*

Pictorial drawing should begin in simple mass and outline and proceed along the line of the child's interest—playthings, objects of daily use, domesticated animals—to the representation of the peculiarities in form and position as presented by an object before them. Wherever the child needs to describe any objective thing accurately in words he would better draw it first. In half of the school work he should find his drawing pad his best ally. Younger children show no particular interest in perspective effects. Do not aim to focus the attention of the pupils upon the proportion, the relative widths and heights of objects before the third grade. After that the teacher should lead them to record the effects of distance and of foreshortening. After the fifth grade children must begin to develop accurate and skillful use of brush and pencil. Drawing should become as common a means of expression as language. Pictorial drawing should be more vital, more genuinely useful to the pupils and more evidently a necessity as part of the school work than we have commonly conceived it.

There are two birthdays of national heroes to be celebrated in February. Valentine Day has a place in the lives of the children. The aim of pictorial drawing in the primary grades should be to lead pupils to acquire facility in graphic expression. Subject matter should be determined largely by other school studies—language, history, and stories.

The subjects for illustrative sketching, which should be confined to the lower grades, should be those with which the children are familiar, such as occupations, games, or fables and stories well known to them. First they must be allowed to tell the story in their own way, then it must be guided expression, and finally an expression combining carefully selected elements. Gradually and firmly the teacher must see that their

representation is faithful to fact. The teacher should not deceive herself in believing that "free expression" is a good excuse for poorly executed work.

Suggestive topics are: Car ride; at the beach; the postman; the grocer; the hurdy-gurdy; a rainy day; a sport in winter; skating; the fire drill; a windstorm; the picnic; the parade; the station; breakfast time, etc.

The value in this work lies in developing the habitual use of the pencil as a simple, direct means of expression.

The picture study, which is suggested throughout each year, will be helpful in connection with picture drawing. The children should be led by simple questioning, to observe and record the results of their study by direct application to their own work in illustration.

In the early grades the meaning of the picture should be brought out. The action, the sentiment, the various physical conditions existing—as climate, time of year, appearance of persons (young or old), etc.—should be studied. In the upper grades it should be given more exhaustive study—simple composition, use of perspective, relation of values, center of interest, etc., as well as a careful observation for the spiritual meaning.

In place of picture study in the advanced years casts of objects and architectural features may be introduced. Pictures, however, are much easier to obtain. Pictures of casts give but a poor presentation of the actual objects and are not recommended. They were made either in the round or relief, and should be studied in their original form. Architectural ornament is quite readily studied through pictures, for it is not so important for its modeling as it is for its decorative qualities.

*Plant drawing and decoration—April, May, and June.*

Nature is awakening; buds are swelling; the song of birds is in the air; the months are rich with new life. Drawings should be in harmony with the season. The first catkins, the first spring flowers, and the return of the first birds are always of lively interest to children. Nature study and plant and bird life can be combined. Careful observation and analysis should be made of native forms and colors so that children may be led to enjoy the beauty of the springtime. The spring material varies according to locality. In the primary grades, Easter is sure to be the center of interest. Arbor Day and Memorial Day should be observed in May. In the early grades the work should follow the season and the calendar. In these grades there should be no formal course in representation and design. Small children can practice such elementary processes as are incident to decorative design, as the tinting of their paper by means of the flat wash, working to an outline, and the placing of one unit in reference to others. Beginning with the fourth grade the pupils should learn something of what constitutes a decorative design, a surface repeat, a border, a bilateral unit, and a rosette. These items may be taught in connection with the study of flowers, birds, and insects of the spring. The designer often goes to spring for his raw material and adapts this material to produce beautiful ornament. The three fundamental principles as given under the study of nature in that syllabus are "recognition," "adaptation," and "utilization." These three apply also in the study of nature and design under the drawing syllabus: Recognition of the flowers and their colors being the first step; conventionalization or the adaptation of the nature motive, the second; and utilization or the application of the design, the third. In the upper grades a simple study of historic ornament is of value in showing correct applications of nature's principles. Historic motives are constantly utilized about us, and a knowledge of these, though necessarily limited, gives the child a sense of participation and power.

## FIRST YEAR.

*September and October—Nature drawing and color.*

*Drawing.*—Grasses, sedges, and the simpler fall flowers and fruits. Avoid complicated specimens. Use pencils, colored crayons, or water colors. Make direct fearless brush strokes, that familiarity and freedom may be gained. Give each child a specimen. City teachers may be able to gather specimens through park officials or by sending to some country school.

*Color.*—Begin to teach the color names—R, (O), Y, G, B, P. By means of a glass prism throw the colors upon the wall. Have pupils imitate the spectrum with colored pencils. Give special attention to the colors in the specimens drawn. Avoid those with too many colors.

*Making.*—Free cutting suggesting autumn festivities—Hallowe'en pumpkin, etc., cut and colored with crayon or water-color. Work centering about the playhouse may also be started at this time—simple furniture, as chair, table, etc.

*Correlation.*—Tell the "rainbow story." The school exercises following the observations of nature's movements preparatory to winter and spring, will take the form of language work. Correlate the making with other school work.

*Study.*—The direction and character of growth. Make a pleasing arrangement of the specimen within an oblong. Taste can be developed by taking pains that the sheet is appropriate in size, or by judicious trimming. Strive for keen observation, for the clear mental image makes for the thoughtful representation. Study for vital correlation with all subjects pertaining to this grade.

*Picture study.*—"First Steps," Millet; "Interior of a Cottage," Israels; "Hiawatha," Norris.

*November, December, and January—Constructive drawing and design.*

*Drawing.*—Objects suggested by the harvest time and objects preparatory to Thanksgiving and Christmas festivities. Use colored papers, colored pencils, and water colors. Draw subjects suitable for work in making, as the illustrations used for Thanksgiving and Christmas cards, etc. Make sketches of the construction work, that each child may have more than one idea in regard to his problem.

*Design.*—Free-hand practice of straight and curved lines. Make simple borders for effect of repeat. Design simple ornament appropriate to work in construction. Make decorations for Christmas tree-furnishings.

*Making.*—Thanksgiving and Christmas cards. Set up and furnish a Christmas tree, with decorations from colored paper. Suitable mountings of pictures relating to the topics of these months gathered from old magazines, advertising pamphlets, etc., and cut out. Free-hand cutting of toys of colored papers will not only interest the children but will give a good control of hand movement, which is one of the best forms of elementary manual training.

*Correlation.*—Connect the drawing with language work. The study of several different objects which may be related to tell a story is recommended. Pictures cut out and colored will furnish illustrations for written work. Correlate the making with our own history, the Pilgrims, etc., as free cutting of the landing of the Pilgrims, to illustrate the historical story.

*Study.*—The terms center, above, below, left, right. Straight and curved lines. Under this head study for precision and accuracy in workmanship. Aim high, but do not expect too much. Study for simple but good design used for constructive work, with use of simple terms, as unit, repeat, border, etc. Order and rhythm in design. One inch measure.

*Picture study.*—"Madonna of Chair," Raphael; "Mother and Child," Brush; "Holy Night," Correggio; "Village Choir," Linn.

*February and March—Pictorial drawing and composition.*

*Drawing.*—Illustrative sketches of Christmas and holiday experiences. Winter sports, games, fables, and nursery rhymes. Illustrate in any convenient medium. Keep to silhouette or flat effects, as no attempt should be made at perspective. Keep drawings simple, bold, and free as possible, for children are apt to work too intently on minor details. Make simple drawings of the construction work.

*Making.*—Illustrated calendar, bookmark, or some such piece of making in the flat. Free cutting for pictorial work to be correlated with other subjects. Symbols for Washington's and Lincoln's birthdays. Use simple modeling merely for free expression.

*Correlation.*—The children can describe, either oral or written, the things that they or some one else has drawn. Clearer observation and clearer expression should be the aim. Have the children discuss their illustrative stories. Let the teacher tell a story, or have the child tell a story, so that the conditions may be placed clearly before the children's minds. Then have them make the drawings. Connect also with geography, history, nature study. Model a mountain of clay or sand, make Indian canoes of paper or clay, model or draw a bird as it is described.

*Study.*—The stories which children illustrate in their drawings should bring out, to some degree, definite action, placing, form, and color. Strive for free imagination and definite expression. Sum up in this illustrative work all previous study in regard to nature, constructive and decorative drawing, as well as color.

*Picture study.*—"Children of the Shell," Murillo; "Angels' Heads," Reynolds; "A Piper and Pair of Nut Crackers," Landseer.

*April, May, and June—Plant drawing and decoration.*

*Drawing.*—Objects in colors appropriate to the season, using colored crayons or water colors. Draw also in silhouette, seeking movement and direction. Make and use simple nature units in simple design. Have the flowers drawn in color from the object, if possible.

*Design.*—Review the standard colors. Match colors found in nature and other sources. Teach that nature uses but little strong color with abundance of weaker colors. Design cover for garden booklet. Use printed title and the conventionalized drawing of a flower. Keep it simple but well spaced.

*Making.*—A flower garden booklet. Keep simple, and make but few leaves. Bind simply and use colored design on cover.

*Correlation.*—Simple poems and bits of prose description will furnish good reading and are sure to call up visions easily put into pictorial forms. The various observances of Arbor Day, Memorial Day, and Promotion Day become a correlating center. A poem written about a single flower may be used in connection with the flower booklet.

*Study.*—The work should be in harmony with the season. The coming of the first catkins; the coming out of the first flowers and the flying back of the first birds are topics of perennial delight to little children. Study characteristics of each as well as their time of coming. In design, study effects of regular spacing.

*Picture study.*—"Before the Storm," Dupré; "Age of Innocence," Reynolds; "Two Families," Gardner.

## EIGHTH YEAR.

*September and October—Nature drawing and color.*

*Drawing.*—Fall flowers and fruits with idea of making records or plates for future use. It is time now to insist upon greater accuracy in drawing, finer proportions and better details. Draw in pencil outline and light and shade.

*Color.*—Treat nature drawings in beautifully refined color qualities for satisfying effects and decorative purposes. Note predominance of grayed color in nature and effective use of strong color.

*Making.*—Sewing and cooking for girls. Manual training for boys, making of simple stools, bookcases, cabinets, tables, etc., after preliminary exercises and instruction on various constructive elements involved. Detailed drawing of objects to be made. Application of color to sewing materials.

*Correlation.*—Choose one phase of the work and trace its development in history. Correlate fall drawing with nature study. Botany.

*Study.*—Careful rendering of nature for botanical analysis. Beauty of color harmony, use of complementary colors, etc. Study differences in poster effects of color and interior decorative color.

*Picture study.*—"Holy Grail Series," Sargent; "The Water Carrier," Millet; "Westminster Abbey," London.

*November, December, and January—Constructive drawing and design.*

*Drawing.*—Various objects in different positions. Note the constructive features, as the joining of the handle on a teapot; the construction of the nozzle; joining of the neck of a can to the nose, etc. Make free-hand and mechanical drawings of the constructive problems. Draw them also in perspective. Make memory drawings of objects previously studied.

*Design.*—Make and apply designs to the problems in making. Competitive design of a cover for the annual school report. Do not feel obliged to always apply surface decoration, however, as good design in the construction is, more often than otherwise, all that is necessary.

*Making.*—Continue the sewing and cooking for girls, and woodworking for the boys.

*Correlation.*—Connect with other studies in a vital way. Children should by this time combine their drawing with other work quite freely and unconsciously. Keep the standard for illustrative work always high. Discourage the tendency toward poor drawing and writing in other lessons.

*Study.*—Memorize familiar objects and study their construction and characteristics with regard to the representation of them. Study for beauty and grace in line and mass and work carefully for beautiful results in the making.

*Picture study.*—"Madonna of the Shop," Dagnan-Bouveret; "Queen Louise," Richter; "Temperance," Burne-Jones.

*February and March—Pictorial drawing and composition.*

*Drawing.*—Make careful studies of still-life groups, working for pictorial or picture effect. Treat also in a decorative way, applying the study of good composition to both the decorative and representative picture. Draw in pencil light and shade, outline, charcoal. Treat in a decorative manner by rendering similar studies in flat washes of color with heavy outline. Compose simple landscapes in flat value and flat color.

*Making.*—Continue the manual-training work as first started, laying emphasis on the value of good workmanship. That school is indeed unfortunate that does not have some handicraft work which furnishes a motive for the application of drawing principles.

*Correlation.*—The landscape composition will illustrate the study of geography. The pictorial rendering may be utilized throughout all the other studies. Correlate cooking and physiology. Collect specimens of various woods and make records of them.

*Study.*—Effects of light and shade, shadows, perspective. Note the elements of good composition as seen and developed through picture study and apply to the drawing. Study effect of line in leading one into the picture; mass for a like reason, and good framing. In the manual-training work study Japanese embroideries for examples of good technic and good furniture for construction, use and care of the wood.

*Picture study.*—"The King of Rome," Greuze; "The Mill," Rembrandt; "Pot of Basil," Alexander.

*April, May, and June—Plant drawing and decoration.*

*Drawing.*—Represent accurately details of early growth. Draw the spring flowers in outline and color for botanical work, with special emphasis on details of construction. Draw in various positions and dissect the flowers for more careful study. Draw various parts for decorative units. Draw the spring birds and butterflies.

*Design.*—Treat spring drawing in a decorative way by conventionalizing the drawings and applying to work in making. Design cover for graduation program and school booklet.

*Making.*—Complete work in sewing and woodworking. Make graduation programs, to be judged, and the best used upon that occasion. Make portfolio or book of design and drawing work for other school subjects. Print carefully from alphabets previously learned.

*Correlation.*—Study of spring with physical geography and nature study. Write a paper on conventionalization for English; figure cost of work in making, as cloth, thread, needles, wood, nails, stain, etc., in arithmetic, or figure profits on machine-made articles, etc.

*Study.*—Practical results from drawing and making. Note development of various techniques and possibilities of following it to a high grade of workmanship and art.

*Picture study.*—"The Haymaker," Adan; "David," Michel Angelo; "Medfield Meadows," Inness.

#### PENNSYLVANIA.

##### Course of Study in Drawing and Industrial Education.<sup>1</sup>

###### DRAWING.

Until our school system provides a more thorough course in drawing, a special teacher or supervisor for the subject will be required. Smaller towns situated near each other should combine to hire a teacher of drawing. Sometimes three or four small towns can be well supervised by a good teacher.

Arrangements can be made through monthly teachers' meetings to have the drawing supervisor meet the teachers of the rural districts and instruct them in the work for the following month. The teachers should be expected to work out in this meeting the lessons which they will present to their pupils. In this way, they will meet the same difficulties which the pupils meet and the supervisor can help to solve them.

The work in drawing will make an especially strong appeal to the rural teacher, for all about her the fields and woods are teeming with materials to use. The country child should be taught to enjoy the beauty of the things about him. He is surrounded by beauty fresh from the hand of the Creator, while the city boy sees the creations of man.

Nature does not reveal herself to the careless observer; but to him who studies her sky and trees, fruits and flowers, "she speaks a various language."

Grade teachers, who are especially fond of the work, should be encouraged to specialize in drawing, since a good teacher usually makes a good supervisor. All teachers should feel the need of some training along this line. The tendency toward industrial education puts new demands upon the teacher, and no subject can be taught well without special preparation.

Summer schools offer courses in these subjects, and the wide-awake teacher will avail herself of the opportunities to prepare for this work.

<sup>1</sup> Ross M. Fetterolf, expert assistant in drawing.

## MATERIALS.

Books should be used only as helps for the teachers. Teachers should be supplied with as many helps as possible. It is a good plan to furnish the grade teacher with two or three copies of her own grade book in order that she may cut out and mount the illustrations for use as good examples. She should also have the book for the grade above and also the grade below her, in order to know the sequence of the work.

Gray and cream manila paper are preferable to white for general use in public schools. White may be used for pencil work, if preferred. Sheets 9 by 12 inches should be used for all grades. This sheet can be carefully torn lengthwise or crosswise when a smaller sheet is desired. Children should learn to tear paper carefully.

Charcoal is an inexpensive material which may be used in all grades. It is good for large mass drawings in the primary grades and for smooth tone studies in the higher grades.

Colored crayons may be used in any grade but are especially adapted to lower grade work. If supplied for the lower grades, they might be borrowed for use in the higher grades.

If a special teacher of drawing is provided, water color can be begun in the intermediate grades. The three-color box with black added is a good box for grade work. Work in brush and ink or black water color can precede the color lessons until the handling of the brush is acquired.

Soft pencils should be used in the higher grades, beginning with the fifth or sixth grade.

Tinted papers will be found very pleasing for construction work.

Mounting cards for exhibition should be of a soft gray, tan, or ivy-green color.

It seems a good plan to have pupils construct large envelopes of manila paper in which to keep their drawings. The older pupils might make envelopes for the lower grades, since it is a good construction problem. If drawings are kept in order as to lessons, it will be easy to exhibit the work by lessons, by passing out envelopes and having each pupil hold up his sheets, one by one.

Each sheet should have the name of the child, his grade, and the number of sheet written plainly just above the center on the back of the sheet.

It is a good plan to have a good-sized poster board of olive green or tan burlap, on which several of the better drawings of the last lesson should always appear. This is a stimulus to good work.

## THE LESSON.

All nature subjects should be large, and a sufficient number for every pupil to see one plainly is necessary. Boards should be placed across the aisles resting on opposite desks—two in every second aisle. Ordinarily six boards are sufficient. On these boards can be placed easels made of a large cardboard, with the bottom turned back, on which books can be placed to make it stand. The nature subject can be pinned to this easel. Vegetables or still life can be arranged on the boards.

Large, fresh specimens should always be supplied. All pupils in the room should draw. A child should have a second sheet of paper only by special permission from the teacher. He should be made to feel that his first sheet is to be his best work. Practice lessons are apt to be carelessly done and the vitality of the lesson is lost. Pupils should never be allowed to draw on both sides of the paper.

In presenting any lesson in drawing it is necessary to have some conversation about the subject to be drawn. If nature subjects—the name, growth, size, and placing, etc., are important. Help the child to look for these carefully before he begins to draw. In still life there is the grouping, the teaching of ellipses, the placing of one object back of another, etc. Do not be afraid to teach the child in the drawing class. You will not check his originality and you can arouse his interest. Help him to see things

as he draws. At the close of the lesson the drawings may be put up and criticisms made by the class. Helpful criticism rather than fault-finding is desired.

Color boxes should be cleaned after each lesson by removing superfluous color from the cakes with a moist brush. Every lesson should be one in neatness and accuracy. Each pupil should have a cloth when painting on which to clean his brush. The brush should be drawn across it lightly, otherwise the bristles will pull out. At the end of the lesson the brush should be dipped into the water several times and then shaken to bring it to a point. Brushes when used for lines should be held vertically—for washes obliquely.

In mounting for exhibitions the mounts should not be too crowded. It is hard to see quality on account of quantity, sometimes. Four to six drawings are usually enough for the average-sized mount. Drawings of the same kind should be kept together, viz. nature subjects, still-life objects, etc.

#### COURSE OF STUDY.

Grades 1, 2, and 3.

The lessons in these grades should be closely related to their subjects. The stories and poems given under the head of English should be illustrated. Good spelling lessons can frequently be taken from the drawing lesson, and the language lesson can be very closely related. If rightly taught, drawing will vitalize every other subject. Primary pupils should draw or paint in mass, since they are not able to produce a line with feeling. Their lines are apt to be hard and mechanical. Pencil outline should be reserved for the higher grades. The length of periods in the lower grades should be from 15 to 25 minutes and it is desirable that drawing be taught every day in these grades.

The work in drawing in the lower grades should be correlated with the industrial work. Indeed, it is so closely related that it is hard to separate it. The teacher should keep this in mind and have all designs made to use on some article, no matter how simple, which is constructed by the child.

September—October—November.

Teach terms: Top, bottom, center, right, left, side, back, front, corner. Creasing and tearing of paper. Teach the six standard colors. Combinations of green, orange, and violet. Paint a color scale. Paint a rainbow. Paint fall flowers and berries in color mass. Paint a simple fall landscape. Illustrate fall games or stories, told in the language lessons. Paint vegetables in mass with crayon or charcoal. Paint the pumpkin for Thanksgiving. Other Thanksgiving subjects, such as the turkey, Jack-o'-lantern, etc. Use these in decoration of a Thanksgiving booklet. Teach the placing of a unit or border. Illustrate Thanksgiving subjects: (a) Catching the turkey; (b) Thanksgiving dinner; (c) Pilgrims.

December—January—February.

Make and decorate Japanese lanterns. Paint lanterns. Paint the Christmas tree. Paint the Christmas stocking. Paint a reindeer. Make simple arrangements for borders by repetition of units. Apply these to the Christmas cards, calendars, booklets, candy boxes, etc. Paint winter landscape. Illustrate memory selections from the English course. Illustrate Christmas subjects: (a) Hanging the stockings; (b) bringing the Christmas trees; (c) Santa Claus coming; (d) Christmas morning. Paint toys in mass with crayons, engines, carts, cars, horns, drums, sled, ship, large animal toys, etc. Paint articles of clothing, caps, hats, mittens, rubbers, rubber boots, shoes, hand bags. Winter landscape, using white chalk for snow. Illustrate games: What I do with my toys. Winter sports: Coasting, skating, making a snow man, making a snow fort. Make and decorate valentines. Make and decorate booklets for Lincoln's and Washington's birthday. These can be made for stories or poems used in language or reading lessons. Simple lettering should be a part of the decoration of a booklet cover. Covers may be made for booklets of trees, flowers, or landscapes. Study Indian design. If possible, draw from a cat or dog. Give exercises in judging lengths



of lines by having the pupils draw free-hand lines of a certain length and afterwards measuring to test them.

March—April—May.

Easter subjects. Paint Easter eggs. Paint rabbit from the animal, if possible. Paint little chicks. Illustrate Easter subjects. Illustrate Easter poems and stories. Paint spring landscape. Illustrate what the wind does. Paint an umbrella on a rainy day; child may pose with an open umbrella. Illustrate spring games and occupations: (a) Playing marbles; (b) base ball; (c) rolling hoops; (d) jumping rope; (e) making garden; (f) planting flowers.

Illustrate: (a) The circus; (b) subjects suggested by spring poems. Paint a watering can. Paint budded twigs: (a) Pussy willow; (b) horse chestnut; (c) lilac. Paint spring flowers. Paint robins and bluebirds. A good effect can be gotten by painting in white chalk, and then painting other colors into it.

Grades 4, 5, and 6.

The length of periods in these grades should be about 35 minutes. Three lessons a week should be given.

September—October—November.

If a good supervisor is provided, water color may be introduced into these grades, otherwise it will be much better to use ink or black water color.

Crayons may be borrowed from the lower grades for color studies.

Paint fall flowers, berries, and seed pods. These may be done in mass with crayons, brush, and ink or black water color.

Make color schemes from autumn leaves, berries, and flowers, to be used later.

Draw leaves in different positions in brush or pencil outline. Draw different proportioned rectangles and place sprays of flowers, berries, or seed pods within, making pleasing compositions.

Paint fruit on the branch, apple, grapes, quince, etc.

Place these in an inclosing frame in tones of gray or color.

Paint vegetables with and without foliage.

Draw the same in accented pencil outline.

Motives may be found by cutting through seed pods, flowers, etc. These may be used singly or in borders for decorating cover for booklets.

A tree book, a flower book, or a seed book may be made.

December—January—February.

Designs may be made to decorate articles planned for Christmas work in the manual-training course.

The holly branches, Christmas tree, bells, etc., furnish motives for the designs.

Simple lettering should be taught and used as a part of the decoration for the booklet.

Squared paper will be found helpful in teaching both lettering and design.

Paint Japanese lanterns.

Draw the lanterns in accented pencil outline.

Study dress fabrics and select good ones as to color and design. Paint a plaid. Paint a rug.

Teach sphere, cube, cylinder, hemisphere, square, prism, and right angled triangular prism, and the shapes of the circle, square, oblong, semi-circle, and triangle.

Draw in light pencil outline and accent, objects based on these type forms: Vegetables, kitchen articles, books, baskets, etc.

Simple groups of these may be studied in the higher intermediate grades. They may also be arranged for composition in line or flat tones.

Study landscape with bare trees. Paint winter landscape at sunset.

Make good booklet covers in which to put compositions about Lincoln and Washington. Make valentines.

March—April—May.

Paint from animals if possible, in mass with brush. Draw from the pose in mass. Study complementary colors. Paint the birds as they arrive in the spring. These may be painted with brush and with colored crayons. Paint a spring landscape. Draw and paint from budded twigs.

Grades 7 and 8.

The period should be about 40 or 45 minutes long, two periods each week.

September—October—November.

Make large accented pencil outline studies of leaves in different positions. Make large studies of fall growths. Make compositions from these studies and paint in flat tones of color. Study color schemes in connection with this work. Fall leaves and butterflies are good materials for color schemes. Make large pencil outline sketches of groups of vegetables. Place groups within frame lines for composition. Make a Thanksgiving booklet cover.

December—January—February.

Make a good border design and apply it to some useful article. Make a Christmas calendar using a suitable decoration. Study lettering carefully. Make a written or printed page, studying spacing. Try to apply this to essays and all written work. Perspective. Draw cylindrical objects studying the ellipse above and below the eye and on the eye level. Draw cubical and rectangular objects, studying receding edges, vanishing points, etc. Solve several geometric problems: (a) To bisect a straight line; (b) to bisect an angle; (c) to erect a perpendicular at the end of a line; (d) to erect a perpendicular at a given point; (e) to divide a line into several equal parts; (f) to construct a pentagon.

Make free-hand working drawings of simple geometric solids such as the cube, square, prism, cylinder, triangular prism, cone, sphere. Use neat free-hand lettering on these drawings, having regard to placing.

March—April—May.

Make large quick sketches of animals. Draw in accented pencil outline from the posed figure. Make large studies in pencil outline of hats, shoes, rubbers, etc. Study buildings and towers from windows. Draw the street scene with attention to perspective. Make careful pencil sketches of budded twigs and spring flowers. Place these in color composition.

PICTURE STUDY.

The following pictures are suggested. Selections may be made from the list. It is not expected that all of them will be taught.

Grade I.

Feeding the Hens.....	Millet.
The First Step.....	Millet.
Can't You Talk.....	Holmes.
St. John and the Lamb.....	Murillo.
A Fascinating Tale.....	Ronner.
Kittens Playing.....	Ronner.
The Pet Bird.....	Von Bremen.
The Cat Family.....	Reynolds. Adam.
Infant Samuel.....	Reynolds.
Baby Stuart.....	Van Dyke.

Grade II.

Dutch Girl with Cat.....	Hoecker.
Feeding Her Birds.....	Millet.
The Knitting Shepherdess.....	Millet.
Saved.....	Landseer.
The Sick Monkey.....	Landseer.
Miss Bowles.....	Reynolds.
The Farm Yard.....	Roll.
Children of the Shell.....	Murillo.
The Divine Shepherd.....	Murillo.
A Helping Hand.....	Renouf.
Young Handel's First Efforts.....	Dicksee.

## Grade III.

School in Brittany.....	Jeoffroy.
French Boys in School.....	Jeoffroy.
The Age of Innocence.....	Reynolds.
King of the Forest.....	Landseer.
Horseshoeing.....	Landseer.
Going to Work.....	Millet.
Pilgrims Going to Church.....	Boughton.
Madonna of the Chair.....	Raphael.
At the Watering Trough.....	Dagnan Bonveret.
The Sheepfold.....	Jacque.

## Grade IV.

Village Blacksmith.....	Herring.
Arrival of the Shepherd.....	Le Rolle.
The Balloon.....	Depre.
The Gleaners.....	Millet.
The Angelus.....	Millet.
Pilgrim Exiles.....	Boughton.
The Mill.....	Ruysdeal.
Ploughing.....	Bonheur.
Lincoln.....	De Camp.
Mozart and Sister.....	Schneider.

## Grade V.

The Connoisseurs.....	Landseer.
On the Alert.....	Bonheur.
By the River.....	LeRoll.
The Shepherdess.....	LeRoll.
The Sheepfold.....	Jacque.
On the Prairie.....	Dupre.
Return of the Mayflower.....	Boughton.
Statue Madonna.....	Raphael.
John Alden and Priscilla.....	Boughton.
Washington Crossing the Delaware.....	Leutze.

## Grade VI.

Song of the Lark.....	Breton.
End of Labor.....	Breton.
The Sower.....	Millet.
Labor.....	Millet.
Return of the Mayflower.....	Boughton.
Christ and the Doctors.....	Hoffman.
Christmas Chimes.....	Blashfield.
Stag at Bay.....	Landseer.
Oxen Going to the Farm.....	Troyon.
Returning to the Farm.....	Troyon.
Mozart at Vienna.....	Hamman.

## Grade VII.

Night Watch.....	Rembrandt.
The Syndics.....	Rembrandt.
The Mill.....	Rembrandt.
The Willows.....	Corot.
Dance of the Nymphs.....	Corot.
Lake at Ville d'Avary.....	Corot.
Embarkment of the Pilgrims.....	Weir.
Holy Night.....	Correggio.
Holy Family.....	Murillo.
The Avenue.....	Hobbema.
Mozart and Sister before Maria-Theresa.....	Ender.

## Grade VIII.

Sir Galahad.....	Watts.
Virgin, Child, and St. John.....	Botticelli.
Frieze of the Prophets.....	Sergeant.
The Doge.....	Bellini.
Delphic Sibyl.....	Angelo.
The Old Temeraire.....	Turner.
The Golden Stair.....	Burne-Jones.
Boston Public Library.....	
Beethoven in Bonn.....	Seyendecker.

## OUTLINE FOR STUDY.

## The Picture.

Name of picture. Name of artist. Why it was painted. Story in the picture. Center of interest. Composition. Where it is now.

## The Artist.

A few facts as to nationality, when he painted, and where. Several of his best productions.

## INDUSTRIAL EDUCATION.

## HANDWORK.

The following outline of handwork in the first five grades offers suggestions for the work of an entire school year in each of the various grades, and is based upon a minimum time of 80 minutes a week. In adjusting the work and time schedule, always consider the needs of the pupils and try to satisfy these needs in the best possible manner. When possible, plan to have the manual work just before or immediately after recess, as much time may be saved in distributing or collecting material. Frequently, however, particularly in the lower grades, the work can be given to a great advantage when the children are restless or after they have been subject to a nervous strain.

In order to have unity, flexibility, and interest, the work has been grouped about the English, history, and geography as outlined in the course of study for the elementary schools of Pennsylvania, as prepared by the department of public instruction.

As a child's first experiences and interests are bounded by the home, the aim should be first to show the child's relation to the home life and then to broaden his view, gradually leading him to an understanding and an appreciation of the social and industrial activities surrounding him, and to the realization of the dignity of useful labor. Furthermore, in so doing the child is given many opportunities for the expression of his thoughts. These expressions of thought will at first be crude, but from the frequent comparisons he will make from time to time, with his observations, the sense of symmetry and proportion will be gradually developed.

No child can do his best unless happy. As true happiness never comes through the development of selfish interests, but rather through obedience to law and respect for the rights of others, the teacher should give group problems from time to time.

Many varieties of handwork are suggested, so that the many sides of child nature may be appealed to, and by following a number of the occupations, greater skill may be developed and a broader grasp of industrial conditions may be secured by the child.

The handwork should be directed, as much so as the other duties of the child; if not directed, it will become mere "busy work" and lose its value in the education of the pupil.

Do not expect accurate work from young children, but always have in mind the ages and abilities of the several pupils. The ultimate aim is not perfection in the details of the project, but the making of useful citizens.

While various forms of handwork are suggested, undoubtedly some teachers will find it advisable, at times, to use some other type of work better adapted to local conditions.

It is not thought that all schools will use all the projects mentioned, but the teachers will select those projects best suited to their needs.

There is no other material which will lend itself to so many purposes in the classroom as paper. The use of the scissors in cutting the various figures gives the child a valuable training in the use of hand and eye.

## GRADE ONE.

## Stories for Illustration.

The Little Red Hen from "Baby Days".....	Mary Mapes Dodge.
The Ginger Bread Man from "Baby Days".....	Mary Mapes Dodge.
The Little Tin Soldier.....	Anderson.
The Discontented Pine Tree.....	Anderson.
The Three Bears in Fairy Stories and Fables.....	Baldwin.
Stories of the Brownies.....	Bingham.

## Historical Subjects for Illustration.

Indian Life: Indian Life. Indian Village. Cut from paper, tomahawks, bow and arrow, tents, assemble a number of tents so as to form a village. Make Indian's girl costume.

Thanksgiving. Cut from paper the various articles upon the Thanksgiving table. Mount them upon cardboard so as to represent the table set. Cut and mount figures to represent "Going to Grandfather's" and "Going to Church."

Washington's Birthday. Cut from paper and mount a hatchet and a cherry tree. Make a Washington's hat from paper.

Local Events. Cut figures from paper and arrange them so as to illustrate some event in local history.

## Seasons and Special Days for Illustration, in Paper.

Autumn. Grapes, vegetables, cutting corn, thrashing, gathering apples and nuts, making cider and apple butter, husking corn, butchering.

Winter: Roasting apples, popping corn, coasting, snowballing, sleighing.

Spring. Cut and tear trees, garden tools, make pinwheels, windmills, etc.

Halloween. Make Jack O'Lantern lamp shade.

Thanksgiving. See historical subjects.

Christmas. Cut out toys, Christmas trees, stockings, fold nappeaces.

St. Valentine's Day. Make valentines.

Lincoln's Birthday. Fold flat-bottomed boat.

Washington's Birthday. See historical subjects.

Easter. Cut out flowers, eggs, chickens, rabbits, cut and fold a chicken coop. Fold Easter basket.

May Day. Make May Day baskets and May Day gowns from paper.

Memorial Day. Make a soldier's cap from paper.

Flag Day. Story of Betsy Ross. Make flags from colored paper.

Closing Day. Illustrate traveling; cars, trolley, boat.

## Supplementary Work.

Paper Weaving. Single weaving: Mat, basket. Right and left weaving; book-mark, mat, napkin ring.

Paper Construction. Table, chairs, bedroom furniture.

## GRADE TWO.

## Stories for Illustration.

Hiawatha.....	Last part.
Fishing and Hunting.....	Mott and Dutton.
Eskimo Stories.....	Mary E. E. Smith.
The Christmas Story.....	Bible.
Robin Redbreast.....	Allingham.

## Historical Subjects for Illustration.

Indian Life. Make bow and arrow, papoose cradle. Paper cutting to illustrate the Indian's method of securing food, trapping, hunting, fishing. Bead stringing.  
 Pilgrims. Make log cabins and church from paper. Arrange cabins and church on sand tables so as to form a settlement. Model in sand and form paper ship Mayflower. Make Pilgrim's hat, sword, cradle. Dutch windmill.

## Nature Study and Geographical Subjects for Paper Construction.

Clock, sundial, wheel, weather vane, leaves, flowers.  
 Modeling from clay. Birds, eggs, vegetables.  
 Halloween. Lantern.  
 Discovery Day. Sail boats, "Santa Maria," "Pinta," "Nina."  
 Thanksgiving. Puritan costume for boy or girl from paper.  
 Christmas. Cornucopia.  
 St. Valentine's Day. Valentine.  
 Washington's Birthday. Soldier's hat.  
 Lincoln's Birthday. Sailor's cap.  
 Arbor Day. Posters illustrating "Tree Planting" and "Treasure Trove."  
 Easter. Cut out flowerpot with flowers, and mount.  
 May Day. May Day basket from paper.  
 Memorial Day. Fan from red, white, and blue paper.  
 Flag Day. Flags of various countries from colored paper.  
 Vacation Days. Tents and lighthouse from paper.

## Supplementary Work.

Cardboard construction. Napkin ring, lamp shade, pencil tray, basket, handkerchief box, pencil box, match holder, brush broom holder, bill holder, comb box.  
 Weaving. Spool weaving; foy reins. Cardboard looms; holder, rugs, hammocks.  
 Knotting. Jute hammock, whistle chain, raffia bag, twine bag, horse reins.  
 Braiding. Raffia, three and five strand.

## GRADE THREE.

## Stories for Illustration.

Docas, the Indian Boy. Snedden.  
 Hiawatha, Selections. Longfellow.

## Historical and Geographical Subjects for Illustration.

Indian Life. "Docas." Weave small raffia baskets, make cart from cardboard, traps from cardboard and twigs, whistles from reeds and willows.  
 Columbus. Make in sand a relief map of the West Indies showing the landing place of Columbus.  
 In connection with Independence. Construction of forts and earthworks on sand table to illustrate some of the important engagements of the War of the Revolution.  
 Make from wood pulp a relief map of Pennsylvania, placing at the various localities the products of that region.

## Special Days.

See suggestions for special days in grades one and two. These ideas may be carried out on a more elaborate plan for grade three.

## Supplementary Work.

Weaving. Raffia rugs, jute rugs, yarn rugs, raffia card case.  
 Braiding and Weaving. Raffia picture frame, raffia brush broom holder, raffia napkin ring, raffia needle book, raffia calendar back, raffia penwiper, raffia stamp box, raffia pin ball, raffia scissor's chain, raffia bookmark, raffia mat, raffia bag or purse, raffia shaving ball, raffia scrapbox, raffia handkerchief box.  
 Black Printing, using wooden pegs.

**Local Industries or Local Improvements.**  
Make a study of some industry or improvement and illustrate by construction in paper or cardboard.

## GRADE FOUR.

## Stories for Illustration.

The Pied Piper..... Browning.  
The Tent Dwellers..... Dopp.  
Thor and his Hammer in Norse Tales..... Mabie.  
Adventures of a Brownie..... Craig.

## Historical Subjects for Illustration.

**Virginia Life.** Model on a sand table the section of Virginia where the first settlement was made. Construct the settlers' cabins, blockhouses, and stockades and place them on the sand table so as to illustrate the first settlement.

**New England Life.** Construct log houses, blockhouses from paper. Cut out trees, corn shocks, pumpkins, men, and arrange on a sand table so as to make a model of an early New England settlement.

The Dutch, Quaker, and other settlements may be illustrated after the manner of the Virginian and New England settlements.

## Geographical Subjects for Illustration.

**Commerce.** Construct a harbor on a sand table, placing lighthouse, breakwater, ships, and wharves where they should be.

**Lumbering.** Construct a sawmill of paper or cardboard and determine its location on a mountain side modeled of sand.

**Agriculture.** Construct a farm house, barns, sheds, wagon, fences from cardboard. Cut from paper, horses, cattle and chickens. Arrange all the projects so as to form a small farm.

Local Industries may be treated after the manner of agriculture, commerce, and lumbering.

## Special Days.

Elaborate the work given in grades one and two.

## Supplementary Work.

**Block Printing.** Make block from clay, blotting paper, or some substitute.

**Baskets.** Splint and rattan sewing, vegetable, and waste-paper baskets. Rope and rush baskets and twisted raffia baskets.

**Weaving.** Rattan and raffia mat, raffia cover for drinking glass.

## GRADE FIVE.

## Historical Subjects for Illustration.

**Stories of the Army.** Select some important campaign of the Revolutionary War and make a relief map in sand of the region placing the forts and battle lines in the proper positions.

**Boonesboro.** Construct from paper, the cabins, blockhouses, stockades, and arrange so as to represent Boonesboro as nearly as possible. Use twigs if possible.

**The First Steamboat.** Construct a model showing the Hudson River with the Palisades and the first steamboat.

**The First Railroad.** The first railroad may be treated after the manner of the first steamboat.

**The Civil War.** Select some decisive engagement of the Civil War and reproduce as nearly as possible the camps, battlefields, etc., on the sand table. Use sand and clay for the land and cliffs, wood for forts, paper for tents and houses.

**The Great Industries.** Using clay, cement, and wood, make a model of a mine or a furnace.

## Special Days.

See suggestions for first and second grades.

## Supplementary Work.

Basketry. Tied stitch rattan and raffia baskets and mats. Indian stitch baskets.  
Solid raffia plaque.  
Weaving. Raffia porch pillow, bead chains, belts, and purses.  
Knotting. Hammocks, shopping bags.

## WASHINGTON.

"Teachers' Manual" in Drawing, from an "Outline Course of Study for Common Schools of the State of Washington."

## DRAWING.

*General Suggestions—*

When drawing books are adopted for any county the publishers should be required to furnish enough courses of study and teachers' manuals to supply the teachers of the districts where such books are used. These manuals are loaded with most excellent suggestions. No teacher who expects to teach this subject can afford to attempt to get along without such a manual.

Connect all study of form and drawing as closely and naturally as possible with other lines of school work. Encourage especially all attempts at sketching from natural objects. If a drawing is distinctly bad, try to cultivate more thoughtful observation. The trouble is most likely to be a matter of imperfect observation. Have all drawing entirely free-hand, allowing no use of rulers for straight lines. Use eraser as little as possible. The object is not to get perfect results on paper, but to train senses, mind, and hand to work together.

Make an effort to have good pictures on the walls and encourage children to study and discuss them.

Encourage children to observe beautiful and appropriate forms in everyday objects; furniture, household belongings, etc. Start them in the habit of noticing how things are made and appreciate what is especially well designed as to form and color.

## OBJECT DRAWING IN THE PRIMARY GRADES.

The most effective means of teaching drawing to primary pupils is by example. The teacher must lead; not push; must draw, not talk; show how by doing, not explaining. How does a boy learn to swim? (1) He sees other boys swim. (2) He wants to swim. (3) He tries and swims. It is the same with flying kites, playing marbles, jumping the rope, riding a bicycle, etc. They see; they have the desire; they learn. Your pupils will learn drawing precisely the same way if they have the opportunity.

Procure some simple objects; any simple form will do—leaves, box-elder seeds, simple flowers, etc.

(1) Give an object to each pupil and ask him to draw it on his slate or tablet. Let the pupils begin work immediately. Teach them to hold the object in one hand between the thumb and forefinger in an easy position, to look at it, and then draw, then to look again and do the same. The *try* is what you are after, not the drawing. (2) You step to the blackboard with the object between your thumb and forefinger and draw it on the board. Do not talk; do not explain; do not say a word; simply draw, and bright eyes will do the rest. Your drawing is not for them to copy, but to show how, to lead, to encourage. The pupils see how you draw, see the drawing on the blackboard, and try to do likewise. To be sure there will be more or less copying of your



drawing, but never mind; this is a tendency inborn in the human race and is a force that will serve you well if rightly directed, so when looking at the drawings of each do not judge harshly those who have copied your drawing, but lead them to draw what they see; to draw their own object and to use soft lines.

Turn the object over and draw it. There is no reason why pupils should not draw from two to six objects in one lesson and draw each as well as if only one were drawn. Slow, laborious drawing in a class of little ones is not desirable.

#### OBJECT DRAWING IN THE GRAMMAR GRADES.

*How to collect objects.*—Do not ask your pupils for objects in a general way, but be specific. Suppose you have 20 pupils and to-morrow wish potatoes for each pupil, ask "Who will bring 20 potatoes to-morrow for the class in drawing?" From those who volunteer choose one and hold him responsible for the 20 potatoes on the morrow. Write on the blackboard a list of objects you want and ask each pupil to pick out an object that he or she can bring to school. Charge each pupil with the object he agrees to bring and hold him to the charge until the debt is paid. A good collection of objects for drawing is very desirable.

The following objects are generally suitable and procurable for drawing:

*Summer and fall objects.*—Box-elder seeds, milk-weed pods, ear of corn, head of wheat, peach stones, a squash, chrysanthemums, asters, and sunflowers.

*Winter objects.*—Pine cones, birds' nests, wasps' nests, cocoanut, banana, lemons, leafless trees, etc.

*Spring and summer objects.*—Buds of various plants, catkins, leaves, grasses, roots, dandelions, pansies or violets, apple, peach, and cherry blossoms, crocuses, radishes, strawberries, etc.

*Old, worn and broken objects.*—Bowl, teapot, pitcher, jar, jug, oil can, lamp, candlestick, bottle, bucket, keg, waste basket, berry basket, umbrella, hat, baby's shoes, rubber overshoes, faucet, book, roll of paper, broom, skates, blocks of wood. Mounted birds, animals or reptiles are also good objects to draw from. Some small objects suitable to hold in one hand and draw with the other are: A key, fishhook, scissors, top, knife, buttonhook, nail, screw, corkscrew, toothbrush, padlock, buckle, spool.

*Group of objects.*—Hat, gloves, and cane or umbrella; plaster of Paris models; teapot, cup and saucer; pitcher and glass or mug; vase with a flower; basket of fruit; pumpkin cut in half; loaf of bread, bowl and pitcher; group of fruits; candlestick and book; pail and scrubbing brush; oil can, paint pot and brush.

*Use and placing of objects.*—If the objects are small, it is best for each pupil to have his own object. This can be very easily managed with such objects as leaves, buds, twigs, flowers, fruits, etc. It is not necessary for the pupils to have the same kinds of objects; each may have a different object and not at all interfere with the effectiveness of the class. The most effective way of placing large objects such as those under the head of "Old and broken objects," is to procure boards about a foot wide; place these across the aisles and place or group the objects in the middle of the board. In this position from twelve to fourteen pupils can see the objects plainly. Do not ask a large school to draw from one object placed on the teacher's desk.

*How to draw objects.*—If the object is long and slender, first draw the median line; second, with the unaided eye, choose points of prominence; third, roughly mark in proportions; fourth, finish.

When an object consists of one large part and several small parts, first, draw with light lines the large part; second, add the smaller parts to it; third, finish. For instance, when drawing the human head, do not begin with the nose or face, but draw the head first, and to the head add the smaller parts. The recognition of the shape of the whole or part of the object is of great aid in drawing. For example, in drawing a cat sitting down, recognize that the shape of the body of the cat is oval;

the head round, and the ears triangular. This simplifies the drawing of it. These familiar shapes are quite common in objects if you will but look for them, and when recognized are great aids in getting the proportion.

One of the best methods of drawing irregularly shaped objects containing considerable length and width, such as a hat or shoe, is to first take the length; second, find the width and block out the size with light lines; third, find and mark the prominent points; fourth, finish. Almost any point may be judged very accurately if the mind is concentrated on that point. We fail when we try to take in two or more points at the same time.

When drawing a group of objects such as named under the head of "Groups," first choose a prominent point; second, from this point locate several surrounding points with the unaided eye—the drawing of light lines from one point to another is a great aid in locating these points; third, lightly sketch in the shape of the objects and locate the detail; fourth, finish.

*Drawing box-shaped objects.*—The object should be at least three times its height away from you; it may be farther away than this, but if nearer the object will appear distorted.

*Measuring.*—Procure a box (a crayon box is an excellent model) and place it before you; hold your pencil at easy arm's length away; close one eye; let the upper end of the pencil correspond with one corner of the box, and with your thumb mark the other corner; this gives a unit with which to compare other lines. In order to learn how to measure, make several measurements of lines and compare them. In making measurements care must be taken to keep the pencil the same distance from the eye and not let the pencil slant or recede in the direction of the object. The pencil must be kept at right angles with the arm at all times. This is the most important point in measuring, and it must be observed. The general process of drawing box-shaped objects is as follows: First, draw the nearest vertical line; second, find the remaining vertical lines; third, find the courses; fourth, finish. First step: Place the object in position, draw the nearest vertical line any length you wish; this line (line 1) when drawn, becomes the unit of measure of all other lines in the drawing and determines the size of the picture. Second step: Find the position of vertical lines by comparing the length of line 1 with the horizontal distance between other vertical lines and make the same comparison in your drawing. Draw the vertical lines lightly and of indefinite length. Third step: To find the corners, hold your pencil horizontally and pass it up line 1 on the object, not on the drawing; note where it crosses the corner, that is, how far above the bottom or below the top of line 1; mark this point in your drawing on line 1, and from this point draw a light horizontal line to intersect the vertical line drawn in the second step (which is line 2). Where this line crosses line 2 it will mark a corner; find other corners in the same manner and draw lines from foot of line 1 to points of intersection. From top of line 1 draw lines parallel with last-mentioned lines and your drawing is complete. Any known point may be found by finding how far to the right or left and how far above or below it is of a given point in your drawing. For practice draw boxes at the right of the eye, at the left, above, below, above and to the right, below and to the left, etc.

In drawing a house, barn, shanty, shed, cabin, tent, etc., look at it as a box with a roof added to the top. In general these objects may be drawn as follows: First, take the nearest vertical line; second, find other vertical lines as in the case of the box; third, find the corners; fourth, locate the detail and finish.

#### First Grade.

First semester—

#### Recommended Minimum Course.

- (1) Observation of new surroundings and materials.
  - (2) Conversational lessons regarding landscape, clear blue sky, and soft green grass.
- Show good pictures.

- (3) Awaken interest for color as a whole. Let children bring leaves, flowers, samples of cloth, etc.
- (4) Draw autumn grasses and leaves. Use colors if possible.
- (5) Draw fruits and vegetables. Use colors if possible.

*Second semester—*

## Recommended Minimum Course.

- (1) Conversational lessons regarding the coming spring.
- (2) Conversational lessons about the landscape. Show pictures. Speak of the horizon.
- (3) Have children bring early spring flowers.
- (4) Study of birds and fowls.
- (5) Draw landscape on board. Pupils draw it on paper. Fill in both sky and ground.
- (6) Draw some animal. The rabbit is a good subject for Easter time. Color Easter eggs.
- (7) Draw flowers, buds, and branches.

## Supplementary Course.

- (1) Sprouting of seeds. Study in different stages, and draw them.
- (2) Stories of Hallowe'en sports. Make pictures on board. Let the children draw a pumpkin of good color.
- (3) Landscape painting in water colors.
- (4) Teacher to read stories of winter and Christmas time. Let children illustrate.
- (5) Draw domestic animals.
- (6) Observation and memory drawing.

## Second Grade.

*First semester—*

## Recommended Minimum Course.

- (1) Conversational lessons about landscape.
- (2) Teacher draw oblong on board and fill in ground and sky.
- (3) Awaken a general interest in colors.
- (4) Let children bring flowers and leaves. Draw them in colors.
- (5) Draw something suitable for Hallowe'en.
- (6) Stories of winter, snow, and sleds. Illustrate them.
- (7) Draw fruits, such as the "big red apple."

*Second semester—*

## Recommended Minimum Course.

- (1) Winter landscape in color.
- (2) Talk about Lincoln; show pictures; draw.
- (3) Design and make valentines.
- (4) Draw or paint from budded twig, spring flowers, etc.
- (5) Design and make simple Easter cards.
- (6) Study and draw two domestic animals.
- (7) Stories and drawings appropriate for decoration. Draw flag, drum, etc.

## Supplementary Course.

- (1) Read or tell stories. Let children illustrate.
- (2) Sprouting of seeds. Study of grasses and grains. Drawings.
- (3) Stories and illustrations of harvest time.
- (4) Pictures and study of Puritan life.
- (5) Thanksgiving time stories and illustrations.
- (6) Stories and drawings of night and the moon.
- (7) Indian colors of beads, blankets, baskets, etc.

## Third Grade.

*First semester—*

## Recommended Minimum Course.

- (1) Show good pictures.
- (2) Let children tell of beautiful places and things they saw during vacation.
- (3) Let children recall some interesting picnic spot and make a picture.

- (4) Gather and make a collection of seeds; draw them.
- (5) Observe and discuss beautiful trees.
- (6) Study and draw autumn vegetables.
- (7) Draw collection of fruits.
- (8) Illustrated stories of Thanksgiving and Halloween.
- (9) Study of sunset skies.
- (10) Painting or drawing Christmas tree.

*Second semester—*

## Recommended Minimum Course.

- (1) Make chart of primary and secondary colors.
- (2) Winter landscapes in colors.
- (3) Design and make simple valentines.
- (4) Study and draw the rooster.
- (5) Stories of George Washington, illustrated.
- (6) Study budding branches.
- (7) Early foliage and flowers; dandelions, tulips, and hilies.
- (8) Study of animals. Draw from memory.

## Supplementary Course.

- (1) Illustrating stories based on Mother Goose rhymes.
- (2) Color of landscape at night; houses indistinct; trees, etc.
- (3) Illustrate May Day stories.
- (4) Sunset and marine effects.
- (5) Picture studies of historic monuments.
- (6) Illustrate winter sports.

## Fourth Grade.

*First semester—*

## Recommended Minimum Course.

- (1) Study of trees. Show pictures and illustrate on blackboard.
- (2) Study of berries.
- (3) Autumn leaves.
- (4) Simple groups of vegetables in color.
- (5) Fruits in color.
- (6) Thanksgiving studies.
- (7) Evergreen trees in connection with landscape.
- (8) Christmas stories illustrated.

*Second semester—*

## Recommended Minimum Course.

- (1) Animal stories to be emphasized. Read good stories and show pictures. Bring a pet animal and study from living model if possible.
- (2) Stories suitable for Washington's Birthday to be illustrated.
- (3) Early buds and branches.
- (4) Early spring flowers. Paint or draw in colors.
- (5) Free-hand lettering.
- (6) Study the Robin Redbreast. Read or tell stories about him. Paint or draw him in colors.
- (7) Picture studies and illustrations appropriate for Decoration Day.
- (8) Study some familiar birds.

## Supplementary Course.

- (1) Paint sunset.
- (2) Group mass of trees against sky.
- (3) Study fruit trees with ripened fruit.
- (4) Conversational lessons illustrated.
- (5) Appearance of houses and trees covered with snow.
- (6) Study of trees and foliage.

## Fifth Grade.

*First semester—*

## Recommended Minimum Course.

- (1) Collection and study of grasses; also wild flowers. Paint or draw.
- (2) Fruits and vegetables in colors—the tomato, red peppers, apples on branch, etc.
- (3) Study of autumn landscape. Make several sketches.
- (4) Illustrations for Halloween.
- (5) Picture study of Puritan life; Thanksgiving.
- (6) Typical winter landscape in colors. Read stories for illustration.
- (7) Still life. Group of Japanese lanterns in color.

*Second Semester—*

## Recommended Minimum Course.

- (1) Outdoor sports, appropriate for season. Read stories. Illustrate in color.
- (2) Study of the lion. Stories and pictures. Draw in color.
- (3) Freehand lettering.
- (4) Early spring buds and flowers.
- (5) Typical spring landscape, blossoming trees, etc.
- (6) Grasses and wild flowers in color.
- (7) Study of familiar birds.

## Supplementary Course.

- (1) Studies of berries, seed pods, etc.
- (2) Study of pictures of great artists.
- (3) Illustration of stories.
- (4) Wild animal study.
- (5) Draw a vase from object.
- (6) Draw an empty basket showing the interior.
- (7) Draw some kitchen utensils.

## Sixth Grade.

*First Semester—*

## Recommended Minimum Course.

- (1) Study of some simple garden flowers. Paint or draw in color.
- (2) Study of fruit on the branch.
- (3) Study of grasses, large weeds, or plants bearing seed-pods.
- (4) Autumn landscape in colors.
- (5) Story of first Thanksgiving, illustrated.
- (6) Pictures of towers, steeples, and domes.
- (7) Picture study appropriate for Christmas.

*Second Semester—*

## Recommended Minimum Course.

- (1) Still life. Arrange simple study of bowl and vegetables.
- (2) Animal life. Drawing of animals from memory and definite pose.
- (3) Dog and cat. Bring them to school if possible and work from living model.
- (4) Initial and motto lettering.
- (5) Continue drawings from nature.
- (6) Summer landscape in color.
- (7) Draw hats or caps in different positions.

## Supplementary Course.

- (1) Life and action studies.
- (2) Illustrate selection from Hiawatha.
- (3) Nature study in color.
- (4) Color contrasts of seasons.
- (5) Draw a hat box in three different positions.
- (6) Draw an open book.
- (7) Draw the schoolroom door.

## Seventh Grade.

*First Semester—*

## Recommended Minimum Course.

- (1) Study and sketch grasses, weeds, and flowers.
- (2) Vegetable study in color.
- (3) Study of landscape pictures of masterpieces.

- (4) Draw trees from memory.
- (5) Picture study of masterpieces appropriate for season.
- (6) Paint snow scenes from memory in color.

*Second Semester—*

## Recommended Minimum Course.

- (1) Life and action. Outdoor games, etc.
- (2) Sketch winding roadways and rows of trees.
- (3) Sketches of country houses, roadways, fences, etc.
- (4) Initial letters and mottoes.
- (5) Studies of early spring.
- (6) Marine scenes from description, imagination, or observation.
- (7) Landscape and marine in sunset and moonlight.

## Supplementary Course.

- (1) Landscape in wash or charcoal.
- (2) Still life. Arrange simple group of teapot, bowl, etc. Make simple, quick sketches, avoiding detail.
- (3) Life and action. Quick action studies of single figure, showing different positions and attitudes.
- (4) Typical summer landscape involving principles of perspective and figure study.
- (5) Draw a bat and ball mitt.
- (6) Illustrate Snowbound.

## Eighth Grade.

*First Semester—*

## Recommended Minimum Course.

- (1) Study of grasses, weeds, flowers, etc.
- (2) Decorative compositions from fall flowers, fruits, berries, etc.
- (3) Arrange and decorate calendar.
- (4) Study of landscape from good pictures.
- (5) Pupils give word pictures and class illustrate.
- (6) Thanksgiving picture study.
- (7) Draw object having large handle or spout.

*Second Semester—*

## Recommended Minimum Course.

- (1) Life and action. Show pictures of masterpieces of figures in action. Make quick sketches of figures in action.
- (2) Sketching from pose in pencil or charcoal.
- (3) Sketching houses from observation.
- (4) Decoration of calendar.
- (5) Study of early spring flowers.
- (6) Illustrated mottoes.
- (7) Landscape scenes.

## Supplementary Course.

- (1) Freehand lettering.
- (2) Observation and window sketching in pencil.
- (3) Studies of grasses, weeds, and simple growths in life size. Make brush studies in ink or charcoal.
- (4) Draw a chair on a table.
- (5) Draw a fish.
- (6) Draw a stove or other simple object.
- (7) Work in decoration.

## GRADE OUTLINES OF CITIES.

The following cities are represented by grade outlines either in part or in whole:

Boston, Mass.	Minneapolis, Minn.
Worcester, Mass.	Denver, Colo.
Springfield, Mass.	Salt Lake City, Utah.
Pittsburgh, Pa.	Los Angeles, Cal.
St. Louis, Mo.	San Francisco, Cal.

## BOSTON, MASS.

"Drawing and Manual Training"—An outline of Lessons for Boston Elementary Schools, Grades I, II, III.

## PART I.—DRAWING.

## FIRST GRADE.

Five 20-minute periods a week.

**NOTE.**—The chief thing is that children draw. The kind of line produced or how the pencils are sharpened or held is of slight importance. Improvement will come through repeated effort intelligently guided by the teacher. Do not be too anxious about good results at first. However small the percentage of good drawing, if it steadily increases, the work is progressing as it should. Make use of any occupation that gives children practice in outlining form, such as drawing for busy work, or illustrating incidents, or cutting out pictures.

## SEPTEMBER.

*First and second weeks.*

Make two or three very simple drawings on the blackboard of common objects, and let the children imitate by laying colored sticks, splints, or pegs.

Let them repeat the representation of one object several times, and then, if possible, draw this with pencil or crayon.

Continue work similar to that of the first week, or let children cut out printed pictures to learn to use scissors and to follow outlines of shapes. Use such material as magazines, catalogues, etc.

## OCTOBER.

*First week.*

1. From a blackboard sketch or picture of the rainbow teach the children to name the six standard colors. Find these colors in the box of crayons, and make stripes at least an inch wide. These may be cut into small pieces and used in review lessons.
- 2, 3, and 4. Construct with colored sticks, splints, or pegs one of the following objects: A chair, table, ladder, fence, or window, and draw with pencil or crayon.
5. Have the children select and arrange in six color groups such objects as pegs, sticks, pieces of paper, cloth, or yarn, having coloring like the six rainbow colors.

*Second week.*

1. Practice filling in squares, circles, printed pictures, or outlines with the crayons.
- 2, 3, and 4. Construct with colored sticks, splints, or pegs one of the objects suggested last week, and draw with pencil or crayon.
5. Color. Find the rainbow colors in natural objects or pictures of birds, flowers, butterflies, etc.

Theodore M. Dillaway, supervisor of manual arts.

**CHART OF A COURSE IN DRAWING, DESIGN, AND HANDICRAFT FOR THE GRADES.**

Tabulated by Nat. L. Berry.

From Fine and Industrial Arts in Elementary Schools, by Walter Sargent.

Aim and outcome.	Year.	Representation.	Construction.	Design and color.
<p>Young children express ideas by graphic symbols instead of literal representation. They should represent a few objects in terms of lines and shapes. Pupils in the lower grades may be led to draw with facility things which interest them, to shape easily handled material into visible expression of their thought and imagination, to gain definite knowledge of typical forms, simple geometric relations, elementary materials and processes, and to discover general distinctions of color.</p> <p>The middle grades should handle freely as a means of giving expression to ideas.</p>	<p>I</p>	<p><b>ILLUSTRATIVE DRAWING</b>—Experiences at home and at school and other interesting incidents.  <b>OBJECT DRAWING</b>—Repeated lessons on a few selected subjects to develop a more thorough acquaintance with the objects selected.  <b>MATERIALS</b>—Lead pencil, colored pencils, various illustrations for suggestion.</p>	<p><b>ARRANGEMENT AND BUILDING</b>—blocks, etc.                      Develop imagination, and knowledge of position, relation, stability, precision.  <b>MODELING</b>—sand, clay or other plastic material. Familiar forms.  <b>PAPER CUTTING</b>—following a line—freehand.                      Geometric figures, familiar forms.                      Subjects relating to Thanksgiving, Christmas, Valentine, etc.  <b>USE OF RULER</b>—straight edge—line between two points.                      Measure—whole inches only.</p>	<p><b>ARRANGEMENT</b>—pegs, lentils, tablets, etc.                      Repetition in borders and surfaces.                      Sense of rhythm developed by vocal count, or piano playing.                      (Color.)                      Recognition of six typical colors—R. O. Y. G. B. V.                      Collection of objects similar in color.                      Arrangements drawn in crayon or colored pencil—any color on white or gray.</p>
<p>In the middle grades work loses much of its unconscious simplicity and should be directed more specifically and made a matter of persistent study along a few selected lines. Beginning should be made in forecasting results by means of working drawings and patterns, and simple objects adequate to a given purpose and of pleasing proportions. Pupils should become able to arrange decorative elements so that the spaces are well related; to match colors, and to discriminate between tones, using given samples. The habits of work which are developed now will determine largely the future attitude of mind of the individual toward the art.</p>	<p>II and III</p>	<p><b>ILLUSTRATIVE DRAWING</b>—Personal experiences, school studies, and other interesting subjects.  <b>OBJECT DRAWING</b>—Toys, birds, animals, and other familiar things. Consecutive lessons on subjects to develop ability to draw the salient characteristics of a few things well.  <b>MATERIALS</b>—Lead pencil, colored pencils, various illustrations for suggestion.</p>	<p><b>MODELING</b>—sand, clay, etc.                      Color—appearance and character of the subject.                      (Use of RULER—) for straight lines and "measure—y" and "z."                      Drawing lines vertical, horizontal, parallel, at an angle.                      Simple patterns—the beginning of working drawing.  <b>PAPER CUTTING</b>—geometric forms and simple patterns.  <b>MAKING OBJECTS</b>—from paper and cardboard.                      Two dimensions—tags, flags, gift cards, etc.                      Three dimensions—toy houses, furniture, sleds, etc.</p>	<p><b>ARRANGEMENT</b>—Pegs, lentils, etc.                      Any simple units.                      Borders and surfaces developed by vocal count or piano music.                      Decoration of bookmarks, souvenirs, valentines, holiday greetings, covers with borders, or simple units.  <b>COLOR</b>—second year—hues. Third year—values.                      Collection of illustrations.                      Color scales—values—selected from given samples.                      Coloring designs—pleasing combinations of values.</p>
<p>In the upper grades work should be directed toward the development of a more definite and individualized style. Pupils should become able to arrange decorative elements so that the spaces are well related; to match colors, and to discriminate between tones, using given samples. The habits of work which are developed now will determine largely the future attitude of mind of the individual toward the art.</p>	<p>IV and V</p>	<p><b>ILLUSTRATIVE DRAWING</b>—Explanation and description guided by questions regarding particular phases of personal experience, school studies, etc. Continued use of sketchbooks for gathering data.  <b>OBJECT DRAWING</b>—More careful study of proportion and of the appearance of objects in different position.                      Variation in style and method of drawing as suggested by the subject; for example, a landscape, a still life, a portrait.</p>	<p><b>MODELING</b>—tiles and simple pottery in clay.  <b>WEAVING</b>—mats, rugs and baskets.  <b>PATTERNS</b>—or working drawings in two dimensions—full size and to scale, involving use of ruler, compasses, and 45° triangle.</p>	<p>DESIGNS for rugs, folders, covers.                      Arranging borders of varying width to secure well-related spaces.                      Making of modified or accented corners.  <b>MODIFICATION OF NATURAL FORMS</b>—Adaptation to squared paper, weave,</p>



<p>IV and V</p>	<p>Variation in style and method of drawing as suggested by the object, for example, and pointing of certain sketchbook free drawing of plants with a few brush strokes to represent the general character, shape, structure and position of plant forms and objects, and memory drawing to develop ability to reconstruct appearances from mental impressions.</p> <p>MATERIALS—Pencil, brush, and water colors.</p>	<p>Two dimensions—half size and 10 passes, and 45° triangle.</p> <p>MAKING OF OBJECTS—from paper cardboard, thin wood, involving knife work and simple bookbinding processes. For folders, book-covers, needle-cases, letter files, etc.</p>	<p>MODIFICATION OF NATURAL FORMS—Adaptation to squared paper, weave, cross-stitch, etc.</p> <p>MIXING COLORS—felt washes. Scales of hues and value—five tones. Coloring of designs in pleasing intervals of tones.</p>
<p>VI</p>	<p>ILLUSTRATIVE DRAWING—Fuller explanation and description of specific aspects of the subjects under consideration. Continued use of sketchbooks and data.</p> <p>OBJECT DRAWING—Training in representing the appearance of three dimensions in solid, rectangular, and curvilinear objects, and the beauty of structure and shape of natural forms. Deliberate selection of the style and method best suited to the subject.</p> <p>MATERIALS—Hard and soft pencil, brush, and water color.</p>	<p>MAKING OBJECTS OF USE IN SCHOOL OR HOME from patterns or working drawings.</p> <p>Selection of materials.</p> <p>Methods of construction.</p> <p>Hand work mastery of tools.</p> <p>HOUSEHOLD ACTIVITIES—Use of kitchen equipment. Preparation of cereals and vegetable dishes.</p> <p>Setting and clearing table.</p> <p>Care of dishes.</p> <p>Sewing—basting, stitching, holding work.</p> <p>Doll's clothing—sketches, measurements, patterns.</p>	<p>BI-SYMMETRICAL ARRANGEMENTS—Bilateral arrangement of given forms.</p> <p>Bi-manual practice in drawing.</p> <p>Planning book cover by experimentation with different spacings, arranging splints or ruler and relation of elements.</p> <p>COLOR—using water color.</p> <p>Varying intensities.</p> <p>Scales of five stops.</p> <p>Matching given tones by mixing.</p>
<p>VII and VIII</p>	<p>ILLUSTRATIVE DRAWING—Personal experiences, school studies, etc. Sketchbooks devoted to the collection of pictorial data relating to different subjects.</p> <p>OBJECT DRAWING—Nature drawing with pencil or brush to show general character of shape and growth. Toys, implements and other constructed objects, drawing to show correct main proportions and also the general appearance of the objects when placed in several different positions.</p> <p>MATERIALS—Pencil, brush, and ink and water color, various illustrations for suggestion.</p>	<p>INDUSTRIAL AND ECONOMIC PROBLEMS—Sketches, plans, estimates, measurement.</p> <p>Materials, processes of manufacture, quality, price.</p> <p>PREVOCATIONAL ACTIVITIES—Agriculture.</p> <p>Woodworking—making simple furniture: chairs, tables, picture frames, cabinets, etc.</p> <p>Bookbinding, portfolios, card catalogues, books.</p> <p>HOUSEHOLD SCIENCE AND ARTS—Marking, simple cooking, care of food.</p> <p>Rooms, serving meals.</p> <p>Mending, darning, sewing, simple machine stitching.</p> <p>Making underwear, simple dresses.</p> <p>Classification of textiles, appropriate uses.</p> <p>Care of fabrics, hygiene of clothes.</p>	<p>DECORATIVE PRACTICE—Interpretation of natural forms in terms of ornament.</p> <p>Experimental sketches—modification.</p> <p>Adaptation of elements to printing of books—cover, title-page, text, relation and proportion of parts—spacing.</p> <p>COLOR—using water color.</p> <p>Refinement, harmony.</p> <p>Study leaves, forms, lichens for schemes.</p> <p>Harmonizing of colors by mixing a common element with each.</p> <p>SELECTION—fitness to purpose, beauty of form, and color furnishings, pictures, vases, etc., for actual need.</p> <p>Buildings, pictures, art objects, chosen for training in preception.</p>

Lead pupils in the upper grades to work in different ways as occasion may require. For example, to make quick sketches for general description, or careful drawings for more accurate explanation; to draw from memory and imagination; to consider the best means of portraying particular effects, and the results of different kinds of technique in representation. They should be able to carry to successful completion assignments, to determine results more completely by means of working drawings, to select from possible materials and methods those best adapted to a given purpose, to understand common tools and processes. Encourage them to observe the ways of skilled workers and the technical devices and conventions employed in industrial processes; to develop an appreciation of skill in productive labor. Lead them to appreciate beauty of form and color in nature and art; to observe the constructive and artistic services of their constructive and artistic abilities; and to have a general sympathetic attitude toward art and industry.

Such a training should prepare our coming men and women to take a helpful part in the world's activities and to increase their range of enjoyment.

Reprinted from the "School Arts Magazine," Boston, Henry Turner Bailey, editor.



*Third week.*

1. Practice filling in squares or circles with rainbow colors.
- 2, 3, and 4. Construct with colored sticks, splints, or pegs one of the following: Front view of a house, skeleton figures without knee or elbow joints, and draw with pencil and crayon.
5. Optional.

*Fourth week.*

- 1 and 2. Draw the skeleton figure in different positions—jumping, sitting, reclining, running, etc.
- 3 and 4. Illustrate one or more of the following, using skeleton figure: "Giving Sister a Ride in the Cart," "Playing Tag," "At the Dinner Table."

*Fifth week.*

- 1 and 2. Draw a street scene consisting of front views of houses and figures in different positions.
- NOTE.—Establish the street lines first, then draw the houses, and finally add the figures.
- 3 and 4. Construct objects with sticks, etc., and draw the following: Tables, chairs, cupboards, window.

## NOVEMBER.

*First week.*

- 1 and 2. Draw the German flag from models furnished by the third grades.
3. Children color the German flag model with crayons. Top stripe black, middle stripe white, bottom stripe red.
4. Color the flags drawn from the models in Lessons 1 and 2.
5. Optional.

*Second week.*

NOTE.—Teachers may select other related objects for the lessons this week.

1. Make a freehand cutting from paper of the front view of a table.
2. Make a freehand cutting of chairs to go with the table made in the previous lesson.
3. Make freehand cuttings from paper of dishes to go on table.
4. Arrange the table, chairs, and dishes to form groups.
5. Optional.

*Third and fourth weeks.*

Illustrative drawing and cutting of a Thanksgiving story or a Thanksgiving souvenir, e. g., a dinner card or a cover for a Thanksgiving booklet. (See "School Arts Book.")

## DECEMBER.

*First and second weeks.*

NOTE.—Teachers may select other material suitable for Christmas work.

1. Let children draw an evergreen tree with colored crayon.
- 2 and 3. Make a freehand cutting of an evergreen tree. (See Figure 2.)
4. Illustrative sketch of some story or incident relating to Christmas.
5. Optional.

*Third week.*

1. Fill in outline of star with colored crayon. Patterns of stars may be obtained from second-grade teacher.
- 2 and 3. Cut the star and attach a string, or the star may be mounted on a sheet of paper.
4. Color printed outline of Santa Claus.
5. Optional.

## JANUARY.

*First week.*

Constructive cutting, i. e., building up objects from shapes, e. g., a cart, shovel, horn or bugle, broom, long-handled floor brush, cart, drum, doll carriage, etc.

1. Have the children make a picture of some object, e. g., a shovel, horn, broom, cart, drum, or other object.
- 2 and 3. Have the children make a paper cutting of the object drawn in last lesson, after the teacher has made several to show them how.
4. Make memory drawings of the object studied in last lesson. Let some children work at the blackboard while others work at their seats.
5. Make an illustrative drawing, involving the objects studied this week, e. g., "Parade," "Sweeping Day," "Going to Market."

*Second week.*

1. Have the children draw a picture of one of the objects suggested.
- 2 and 3. Show the children how to make a freehand cutting of the object drawn last week and have them make several.
4. Make memory drawings of the objects studied in Lessons 1, 2, and 3 this week. Let some children work at the blackboard while others work at their seats.
5. Have the children make an illustrative sketch involving the objects studied this week.

*Third week.*

1. Have the children make a picture of some object in common use, as a cart or other suggested object.
2. After the teacher has made several cuttings, have the children make paper cuttings of the object drawn in the last lesson.
3. Make, from memory, drawings of the object studied last lesson. Let some children work at the blackboard while others work at their seats.
4. Make an illustrative sketch involving the object studied this week.
5. Optional.

*Fourth week.*

1. Have the children trace, cut, and fold a pattern of a sled.
- NOTE.—A sufficient number of patterns can probably be obtained from Grade III.
2. Have the children make a freehand cutting of a pattern of a sled.
  3. Make, from memory, drawings of the sled. Let some children work at the blackboard while others work at their seats.
  4. Make an illustrative sketch involving the sled.
  5. Optional.

**SECOND GRADE.**

Five 19-minute periods are allowed each week for drawing and one 30-minute period for manual training.

NOTE.—Avoid putting drawings on the blackboard for the children to copy, for it is most important that the child should begin to see through his own eyes rather than through those of the teacher. Make use of any occupation that gives children practice in outlining form, such as drawing for busy work, or illustrating incidents, or cutting out pictures, or laying sticks, splints, or tablets to represent objects and illustrate stories.

*Disposition of completed work.*—Supply each child with an 8-inch by 11-inch envelope, as furnished, in which to keep all drawing and constructive work until the end of the year.

## SEPTEMBER.

*First week.*

- 1 and 2. Review the six standard colors, using colored objects and crayons.
- 3 and 4. Children make houses and stores with splints, pegs, or colored sticks and draw them with crayons.
5. Optional.

**Manual Training.**

NOTE.—The objects made this month are to serve as models for the drawing lessons in fourth week of January.

**Rug.** Measuring and ruling.

1. After a few words about the shape and markings of simple rugs, give each child a piece of the 6-inch by 9-inch drawing paper and have him rule a straight line across it parallel to and 1 inch from each short edge. Have wide crayon lines made over those pencil lines, colors to be selected by the children.

**Towel.** Measuring, ruling, and cutting.

1. Give each child one-half a piece of the 6-inch by 9-inch drawing paper, and have him draw a line parallel to and 4 inches from the best long edge. Have him cut on this line, forming the towel 4 inches wide and 6 inches long. Have straight lines ruled across the models parallel to and 1 inch from the short edges.

*Second week.*

- 1 and 2. Make a color scale consisting of light, standard and dark red. Use crayons. Dark red may be obtained best by putting black on the paper first and then adding red.
- 3 and 4. Construct skeleton figures with sticks or pegs and draw with pencil and crayons. If sticks or pegs are not obtainable have the children draw from sketches on the blackboard.
5. Optional.

## OCTOBER.

*First week.***Manual Training.****Towel.**—*Concluded.*

Have line crayoned as in rug, but not so wide, and have ends snipped up to lines to form fringe.

1. Review the six standard colors. Observe color of pictures, natural and artificial objects, e. g., birds, butterflies, flowers, etc., and compare with the standards.
2. Make or color scale consisting of light, standard and dark red.
- 3 and 4. Draw some object having red color, e. g., apple, beef.
5. Optional.

**Manual Training.****Flag of Japan.** Measuring, ruling, drawing around circle, and cutting.

Give each child one-half piece of the 6-inch by 9-inch white drawing paper; that is, a piece  $4\frac{1}{2}$  inches by 6 inches. Have him then rule and cut on a line parallel to and  $3\frac{1}{2}$  inches from the better long edge. Have him then rule and cut on a line parallel to and  $5\frac{1}{2}$  inches from the better short edge. A circle, to be located with its center slightly to the left of the center of the rectangle, is to be drawn around inkwell cover, or other convenient object, which should be of a diameter slightly greater than one-half the width of the rectangle. Filling in the circle with red crayon completes the flag.

*Second week.*

- 1 and 2. Make color scales consisting of light, standard and dark orange and yellow.
- 3 and 4. Draw yellow or orange flowers, leaves, vegetables, or fruits.
5. Optional.

**Manual Training.**

**Flag of Denmark.** Measuring, ruling, and cutting.

Give each child one-half piece of the 6-inch by 9-inch white drawing paper; that is, a piece  $4\frac{1}{2}$  inches by 6 inches. Have him then rule and cut on a line parallel to and  $2\frac{1}{2}$  inches from the better long edge. Have him then rule and cut on a line parallel to and 4 inches from the better short edge. Four light lines are then to be drawn, 1 inch and  $1\frac{1}{2}$  inches from the better edges, parallel, two to the long edge and two to the short edge. Filling in the corner rectangles and squares with red crayon completes the flag.

*Third week.*

- 1, 2, and 3. Make color scales consisting of light, standard and dark green, blue and violet.
4. Color pictures of people, cut from magazines or papers, with tones of blue or violet.
5. Optional.

**Manual Training.**

**Flag of Switzerland** (or the Red Cross Society or automobile sign for physicians and clergymen). Measuring, ruling, and cutting.

Give each child one-half piece of the 6-inch by 9-inch white drawing paper; that is, a piece  $4\frac{1}{2}$  inches by 6 inches. Have him then rule and cut on a line parallel to and 4 inches from the better long edge. Four light lines are drawn parallel to and  $\frac{1}{2}$  inch,  $1\frac{1}{2}$ ,  $2\frac{1}{2}$ , and  $3\frac{1}{2}$  inches from the better long edge and four to be drawn parallel to and  $1\frac{1}{2}$ ,  $2\frac{1}{2}$ ,  $3\frac{1}{2}$ , and  $4\frac{1}{2}$  inches from the better shorter edge. Filling in the background of the white cross with red crayon completes the flag. For Red Cross flag, have cross crayoned red instead of background. For automobile sign, have cross crayoned green.

*Fourth week.*

- 1 and 2. Make free-hand pencil sketches of the flag of Denmark constructed in the manual training this month. Do not permit ruling or tracing.
- 3 and 4. Color the sketches of flag made in Lessons 1 and 2 this week.
5. Optional.

**Manual Training.**

**Penwiper.** Construction.

Have a finished penwiper to show the class. Discuss its use and the method of its construction, and pass it among the children that they may see and handle it personally. On drawing paper have each child trace around inkwell cover, or other convenient and preferably larger object, to form a circle, and cut out.

*Fifth week.*

- 1 and 2. Make sketches of the flag of Switzerland constructed in the manual training this month.
- 3 and 4. Color the sketches of the flag of Switzerland.
5. Optional.

## NOVEMBER.

*First week.*

- 1 and 2. Make free-hand pencil sketches of the Japanese flag constructed in manual training this month.
- 3 and 4. Color the sketches of the Japanese flag.
5. Optional.

**Manual Training.****Penwiper—Continued.**

If there are available objects from which circles of various diameters can be traced, concentric circles may be traced on the circle cut out during the previous lesson. The spaces between the concentric lines may be colored with crayon.

*Second week.*

- 1 and 2. Construct skeleton figures with sticks or pegs, and draw with pencil and crayons. If sticks or pegs are not obtainable, draw from blackboard sketches made by the teacher. Represent the figure in the following positions: Walking, sitting, kneeling, etc.
- 3 and 4. Use skeleton figures to express the following subjects: Indian, Pilgrims.
5. Optional.

**Manual Training.****Penwiper—Concluded.**

Ask children to bring in scraps of cloth, which should be cut up into circles uniform in size with the paper circle. The most skilful workers might pink the edges. Have each child make holes in the centers of his cloth and paper circles with the point of the scissors or a pin, and fasten together with a paper fastener to be furnished. If it seems best, arithmetic or other soft paper may be used instead of cloth.

*Third week.*

- 1, 2, 3, and 4. Cut and draw objects pertaining to Indian life, e. g., wigwam, bow and arrow, canoe, etc.

*Fourth week.*

- 1, 2, and 3. Illustrative drawing relating to Indian life or Thanksgiving.

**Manual Training.****Star. Construction.**

Have each child trace, from any available equilateral triangle, and cut out two triangles. Have these pinned or pasted together to form a pattern for a six-pointed star.

## DECEMBER.

*First week.*

**NOTE.**—Teachers may select other material suitable for Christmas work this month.

1. Make freehand cuttings from paper of different sized evergreen trees.
2. Let the children draw an evergreen tree, using colored crayons.
3. Show the children how to make a picture of sky, snow, and evergreen trees by using colored crayons and white chalk. These should not be larger than 3 inches by 4 inches.
4. Make an illustrative sketch of some story or incident relating to Christmas.
5. Optional.

**Manual Training.****Star—Concluded.**

Have each child trace, from pattern made in last lesson, and cut out a star. This may be crayoned and mounted if time permits.

*Second week.***Topic.—Design: Christmas card.**

**NOTE.**—Teachers may select other material for the design this month.

1. Have the children cut from drawing paper an oblong about 3 inches by 5 inches. Save this.
2. Show the children how to fold and cut a symmetrical evergreen tree. This should be small enough to look well on the 3-inch by 5-inch oblong.

3. Trace or mount the tree on the 3-inch by 5-inch oblong cut in Lesson 1. Color with crayons.
4. Illustrative sketch of some story or incident relating to Christmas.
5. Optional.

**Manual Training.****Cornucopia. Construction.**

Have each child place a sheet of the 6-inch by 9-inch white drawing paper vertically on the desk, and rule a line  $5\frac{1}{2}$  inches from and parallel to the lower edge. Have him then draw a dotted line  $\frac{1}{2}$  inch from and parallel to the left edge. On left edge,  $\frac{1}{4}$  inch from bottom, he is to place a point, and draw a line from this point to bottom of line. This corner is to be clipped off and solid line cut. A hole is to be punched in upper right corner about  $\frac{1}{4}$  inch each way from edges. Cornucopias are completed by rolling up as far as dotted line, and by fastening with pins or paste. Crayons may be used for border or other decoration.

*Third week.*

1. Fill in outline of a star with colored crayon.
- 2 and 3. Cut the star and mount on a sheet of paper.
4. Color printed outline of Santa Claus.
5. Optional.

**Manual Training.****Fireplace. Measuring, ruling, and cutting.**

Have sheets of 6-inch by 9-inch drawing paper placed with better long edge at the bottom. Five light lines are to be drawn parallel to and  $\frac{1}{2}$ , 3, 4,  $4\frac{1}{2}$ , and 5 inches from the better long edge. Three light lines are to be drawn parallel to and  $\frac{1}{2}$ , 1, and  $2\frac{1}{2}$  inches from each short edge. Have lines darkened as follows to form shelf and details of fireplace: Starting from bottom, first horizontal between second and third verticals from each end; second horizontal between inner verticals; third and fourth horizontals across sheet between end verticals; and fifth horizontal across sheet between second verticals from each end. Starting from each end, first vertical between third and fourth horizontals; second vertical between first and third and between fourth and fifth horizontals; third vertical between first and second horizontals.

## JANUARY.

*First week.*

- 1 and 2. Review vertical, horizontal, and oblique. Have children make illustrative sketches in which these lines are correctly used, e. g., in a sketch of a house interest the children in having the upright lines exactly vertical. Practice drawing vertical lines at the blackboard.
- 3 and 4. Make sketches of houses, doors, windows, fences, etc., involving horizontal and vertical lines. This lesson affords opportunities for definite observation and drawing of objects which are first constructed with sticks or splints.
5. Optional.

*Second week.*

1. Teach parallel. Practice drawing parallel lines at the blackboard, and find parallel lines in the room.
- 2, 3, and 4. Arranging sticks or splints to form objects involving parallel lines; draw the arrangements made.
5. Optional.

**Manual Training.****Fireplace.—Concluded.**

Have shelf heavily crayoned brown to represent wood. Bricks may be marked off with black crayon and lightly crayoned red.

The fireplace may be cut out, cutting up through the center of the opening and along the top to form two flaps, which, blackened and bent back, will form appropriate supports; or it may be cut out completely and mounted on a piece of drawing paper of another color.

*Third week.*

- 1 and 2. Make pencil sketches of the fireplace from the model constructed in manual training.
3. Color the sketch of the fireplace.
4. Make an illustrative drawing involving the fireplace.
5. Optional.

**Manual Training.****Badge. Construction.**

Give each pupil one-half of a piece of the 6-inch by 9-inch white drawing paper cut or torn lengthwise. From this piece have each child cut two 1-inch strips the full length. On one strip have dots placed  $4\frac{1}{2}$  inches from the end on the edges and 5 inches from the same end in the center. Have lines drawn connecting these dots and cut.

*Fourth week.*

- 1 and 2. Make pencil sketches of the badge constructed this week.
- 3 and 4. Make pencil sketches of flat objects, e. g., envelopes, tags, shields, mats, etc.
5. Optional.

**Manual Training.****Badge.—Concluded.**

NOTE.—Have the lesson precede the week's work in drawing.

On the other strip have dots similarly placed  $2\frac{1}{2}$  and 3 inches from one end. Have lines drawn and cut. A third such piece is to be made, having dots placed  $1\frac{1}{2}$  and 2 inches from a square end. Have a folding line drawn on this third piece  $\frac{1}{2}$  inch from and parallel to the square end. Have pieces crayoned red, white, and blue, and fastened together with a pin, with the blue at the top.

**THIRD GRADE.**

Three 60-minute periods are allowed for drawing and one 30-minute period for manual training.

Make use of any occupation that gives children practice in outlining form, such as drawing for busy work or illustrating incidents, or cutting out pictures.

In ungraded classes where all the work indicated can not be accomplished, the illustrative sketching, object drawing, and color work should be carefully done.

*Disposition of completed work.*—Supply each child with an 8-inch by 11-inch envelope, as furnished, in which to keep all drawing and constructive work until the end of the year.

**SEPTEMBER.****General suggestions.***Color.*

Establish clear concepts of the six standard colors and their light and dark tones, so that pupils are able to recognize, name, and match them in natural and artificial objects, e. g., birds, butterflies, flowers, cloth, pictures, etc. Color scales may be placed in a booklet.

*Nature drawing.*

Through the drawing with the lead pencil, develop power to observe and draw accurately (a) characteristic lines of growth of twigs, sedges, and grasses; (b) position and characteristic shapes of buds, leaves, and flowers.



*Object drawing.*

1. To accomplish best results in drawing, it is essential that children sit in an erect position and draw freely from the elbow. The pencil should be held in a flat rather than a vertical position and back from the point about two inches. These habits should be formed through frequent short drills, devoted to drawing lines in different positions. These drills may be done as a part of each drawing period.

2. Through arrangement and drawing of sticks, pegs, or splints to form fences, telegraph poles, houses, etc., develop power to draw from a given object involving horizontal, vertical, and oblique lines of definite lengths and in different positions.

3. Develop appreciation of characteristic shapes and proportions: (a) Through observation and drawing of objects of two dimensions, e. g., envelopes, tags, flags, mats, or similar objects; (b) through drawing the cube, square prism, boxes of different shapes, bowls, cups, jugs, bottles, and similar objects, so placed that the front view only is visible.

Before requiring the pupils to draw these objects at a distance, it is advisable to take an intermediate step in which each child is provided with an object which he places on a book and raises until he observes the front view only.

When the teacher feels that the pupils are able to represent the characteristic shape and proportions of objects near at hand they may then draw from objects at a distance.

In all lessons in which objects are drawn the pupil should first observe the object, then draw, compare the drawing with the object, noting and correcting errors; finally, make another sketch for improvement in shape and proportion.

It is advisable in object drawing to use the lead pencils having large leads.

Outline drawings may occasionally be filled in with crayons.

*First week.*

1. Review the six standard colors. Recognition of standards in objects, pictures, and crayons.

2 and 3. Make sketches of grasses with the lead pencil and crayons.

Note.—If possible, supply each child with a specimen having at least two blades.

(a) Observe direction and comparative length of blades. (b) Draw. (c) Compare drawing with the specimen. (d) Correct drawing. (e) Redraw for improvement.

**Manual Training.**

**Tag.** Construction.

Discuss use, form, and methods of reinforcing hole and of stringing. Give each child one-half piece of the 5½-inch by 7-inch gray cardboard furnished. Have rectangles, 2½ inches by 5 inches, drawn on cardboard, and cut.

*Second week.*

1. Make color scales of a tint, standard, and shade of red. Recognition of values of red in flowers and other objects. The pupils may make these color scales in form of a booklet. Shades of red may be obtained best by putting black on the paper first and then adding red.

2 and 3. Make sketches of grasses, sedges, or weeds with pencil and crayons.

**Manual Training.**

**Tag.**—Concluded.

Have two corners of tag marked out (¼ inch) and cut off. Have hole located and made with scissors point. Have string inserted, using proper method. A ball of gray twine is furnished. To get a number of equal lengths, wind around book and cut.

**Leaf Pattern.**

Have the children trace outlines of leaves on gray cardboard and cut them out. These are to be sent to Grade I.

## OCTOBER.

*First week.*

1. Make color scales of a tint, standard, and shade of orange. Recognition of values of orange in objects.
- 2 and 3. Draw twigs with the lead pencil or crayons. Endeavor to supply each with a specimen.

**Manual Training.**

"Cold Wave" Signal. Measuring, ruling, and coloring.

Use 6-inch by 9-inch gray or manila drawing paper placed vertically on desks. Have light lines drawn parallel to and 1 inch and 4 inches from the top edge. Vertical lines between these horizontal lines are to be drawn at distances of  $1\frac{1}{2}$  and  $4\frac{1}{2}$  inches from the left edge. On the edges of the square thus formed have dots placed 1 inch from the corners and connect by horizontal and vertical lines to form an inner 1-inch square. This inner square is to be black and the rest of the large square should be chalked white. Have meaning of signal lettered in at bottom of sheet.

*Second week.*

1. Make color scales consisting of a tint, standard, and shade of yellow. Recognition of values of yellow in flowers, wood, cloth, etc.
- 2 and 3. Make sketches with the lead pencil of the tag constructed last month.

**Manual Training.**

"Fair and Warmer" Signal. Measuring, ruling, and coloring.

Use 6-inch by 9-inch gray or manila drawing paper placed vertically on desks. Have 3-inch square drawn as for "Cold Wave" signal, but 3 inches lower on sheet end, omitting 1-inch square. Have vertical line extended to top and bottom of sheet. From top of square have distance of 3 inches laid off, above, on extended line. Have a dot placed  $2\frac{1}{2}$  inches to the right of the center of this 3-inch extension. From this dot have oblique lines drawn to ends of 3-inch extension, forming a triangle.

*Third week.*

1. Make scale of tint, standard, and a shade of green. Recognition of values of green in objects.
- 2 and 3. Drawing with pencil and crayons of twigs having berries or leaves.

**Manual Training.**

"Fair and Warmer" Signal.—*Concluded.*

Have square chalked white to indicate "Fair." Triangle is to be black for temperature signal. If this were below the blue flag it would mean "Colder." Have meaning of signal lettered in as before. Flagpole, with ball at top, and halyards may be added if time permits.

*Fourth week.*

- 1 and 2. Make scales of a tint, standard, and a shade of blue and violet. Recognition of light and dark values of these colors in objects. Match the color of objects having these colors.
3. Make sketches with the lead pencil of the "Cold Wave" signal. Review vertical, horizontal, and oblique lines.

**NOTE.**—Supply each child with a signal. Do not permit use of ruler or tracing around the object. Devote a few minutes each lesson to practice drawing horizontal, vertical, and oblique lines. Observe correct position of body and holding of pencil.

**Manual Training.**

**Outline Flag of Germany** (or Bulgaria, Nicaragua, or the Netherlands). Measuring, ruling, and cutting.

Give each child one-half piece of the 6-inch by 9-inch white drawing paper; that is, a piece  $4\frac{1}{2}$  inches by 6 inches. Have him then rule and cut on a line parallel to and 3 inches from the better long edge. Have him then rule and cut on a line parallel to and 5 inches from the better short edge. Two lines are to be drawn parallel to and 1 and 2 inches from the better long edge.

**Outline Flag of France** (or Belgium or Roumania).

Give each child one-half piece of the 6-inch by 9-inch white drawing paper; that is, a piece  $4\frac{1}{2}$  inches by 6 inches. Have him then rule and cut on a line parallel to and  $3\frac{1}{2}$  inches from the better long edge. Have him then rule and cut on a line parallel to and  $5\frac{1}{2}$  inches from the better short edge. Two lines are to be drawn parallel to and  $1\frac{1}{2}$  and  $3\frac{1}{2}$  inches from the better short edge.

NOTE.—These flag outlines are to be sent to the master of the district for distribution in Grade I.

*Fifth week.*

- 1 and 2. Make careful drawing of the weather signal from the model "Fair and Warmer."

NOVEMBER.

*First week.*

- 1, 2, and 3. Make sketches with lead pencil of the "Fair and Warmer" signal. One of the lessons may be devoted to an illustrative sketch involving the signal. Review vertical, horizontal, and oblique. Devote a few minutes each lesson to pencil practice.

**Manual Training.**

**Outline Flag of Spain.** Measuring, ruling, and cutting.

Give each child one-half piece of the 6-inch by 9-inch white drawing paper, that is, a piece  $4\frac{1}{2}$  inches by 6 inches. Have him then rule and cut on a line parallel to and  $3\frac{1}{2}$  inches from the better long edge. Two lines are to be drawn parallel to and  $\frac{3}{4}$  and  $1\frac{1}{4}$  inches from each long edge.

NOTE.—These flag outlines are to be sent to the master of the district for distribution in Grade I.

*Second week.*

1. Color and cut out the printed outline of the Italian flag.
2. Make small free-hand pencil sketches of the Italian flag, and color with crayons.
3. Make a large free-hand drawing of the Italian flag, and color with crayons, or draw fruit or vegetable.

**Manual Training.**

**Table. Construction.**

Use large size drawing paper. Have each child lay out and cut a rectangle 4 inches by  $9\frac{1}{2}$  inches. Light lines are to be drawn, parallel to and at distances of  $\frac{1}{2}$  inch and 1 inch from the long edges, and 2 inches and  $2\frac{1}{2}$  inches from the short edges.

*Third week.*

1. Color and cut out the printed outline of the Cuban flag.
2. Make small free-hand pencil sketches of the Cuban flag, and color with crayons.
3. Make large drawing of the Cuban flag, or draw a fruit or vegetable.

**Manual Training.**

**Table.—Concluded.**

Have the 2-inch squares at the ends of the sheet cut out, and have children cut on the second cross line at each end, as far as the first long line ( $\frac{1}{2}$  inch). Have the first long line on each side folded the whole length, and also the second cross line at each end. In folding, have lines on the outside and folds well creased. Have the legs pasted inside the side pieces.

*Fourth week.*

- 1, 2, and 3. Make an autumn or Thanksgiving souvenir (see "School Arts Books"), or draw fruits and vegetables.

**Manual Training.****Cart. Construction.**

Give each pupil a sheet of the 5½-inch by 7-inch gray cardboard. Have lines drawn and cut 4 inches from best short edge. On large piece (cart body), have light folding (short dash) lines drawn 1 inch from each edge. Have all lines scored, and one short line cut at each corner. The card should then be folded, with scoring lines on the outside, and pasted with the laps inside.

## DECEMBER.

*First week.*

1. Have the children draw an evergreen tree or a tree without foliage.
2. Make pencil sketches of the cart constructed in manual training. Read note in second week of this month's work.
3. Sketch skeleton figures drawing a cart or sled.

**Manual Training.****Cart.—Concluded.**

From pieces of cardboard remaining from last lesson have children cut wheels to be pasted to side of cart. These may be traced from inkwell covers or other circular objects. Any scraps remaining may be used up by the children in undirected construction of tongues, shafts, seats, etc.

*Second week.*

- 1 and 2. Illustrative drawing: "Bringing Home the Christmas Tree," or other topic related to Christmas.
3. Make pencil sketches of the table constructed in manual training, second week in November.

**NOTE.**—Each pupil should place the paper table upon a book and raise to such a level that the front view only is visible. After observing the proportion and shape of the table, the book may be lowered and sketch made; the book should be raised again for comparison between the sketch and the table.

**Manual Training.****Cornucopia. Construction.**

Lay a sheet of the 8-inch by 11-inch white drawing paper horizontally on desk. Mark center of top and bottom edges and connect with vertical line. On the upper edge make points 2 inches each side of center. By oblique lines, connect these points and the upper corners of the paper with the bottom of the vertical line. Cut on outside oblique lines.

*Third week. (Design, Christmas Card.)*

**NOTE.**—Teachers may select other suitable material for the design this month, e. g., Christmas tree ornaments, holly, mistletoe, candles, etc.

**Manual Training.****Cornucopia.—Concluded.**

Place points on the oblique lines  $\frac{1}{2}$ ,  $\frac{2}{3}$ , 1, and  $1\frac{1}{2}$  inches from the top. Connect these points with parallel horizontal lines. Fill in center  $\frac{1}{4}$ -inch space with colored crayons. Fold back on oblique and center lines, and fasten by turning down corners and pasting or pinning. A hole may be punched in top of back.

## JANUARY.

*First week.*

1. Color and cut out the printed outline of the British flag furnished.
2. Make small sketches of the British flag and color with crayons.
3. Make one very careful drawing of the English flag, actual size, or make an illustrative drawing of one of the following, "Sliding" or "Skating in the Park."

**Manual Training.****Sled. Construction.**

Have children lay out and cut rectangles  $4\frac{1}{2}$  by  $2\frac{1}{2}$  inches. Have light lines drawn parallel to and  $\frac{1}{2}$  inch from each of the long edges. Have lines drawn parallel to the ends, and between the long lines,  $1\frac{1}{2}$  inches from one end and  $\frac{1}{2}$  inch from the other.

*Second week.*

- 1 and 2. Make pencil sketches of flat objects: Pocket book, cardcase, ladies' hand bag, etc.
3. Illustrative drawing: "Coasting," "Sliding," or "Skating in the Park."

**Manual Training.****Sled—Continued.**

Have pupils cut on the long lines as far as the cross lines, and then have them cut on the cross lines. After folding up the sides of the sled, have the children shape with the scissors the front and back ends of runners. Handholes may be represented with pencil.

*Third week.*

- 1 and 2. Make sketches with pencil and crayons of the crayon box open part way. By opening the box quarter, half, and three-quarters excellent opportunity will be afforded to study proportion.
3. Illustrative drawing: "Street Scene in Winter."

**Manual Training.****Sled—Concluded.**

Have the children trace around their sleds laid flat on gray cardboard. These patterns are to be cut out and sent to Grade 1.

*Fourth week.*

- 1 and 2. Make pencil sketches of the sled constructed last week.
3. Illustrative drawing involving the sled.

**Manual Training.****Chair. Construction.**

Use 8-inch by 9-inch drawing paper. Have each child lay out and cut a rectangle 4 inches by  $4\frac{1}{2}$  inches. Have the best long edge to the front. Light lines are to be ruled as follows:  $\frac{1}{2}$ , 1,  $1\frac{1}{2}$ , 2, and  $2\frac{1}{2}$  inches from the front; 1 and  $1\frac{1}{2}$  inches from each side.

*Note.*—The chair will be completed the first week in February.

**PART TWO—DRAWING.****FIRST GRADE.**

Five 20-minute periods a week.

*Disposition of completed work.*—When the drawing envelopes become filled allow the children to take home completed work of the first half year.

**FEBRUARY.***First week.*

1. Illustrative drawing or cutting.
- 2 and 3. Teach vertical. Have the children find vertical lines in the room. Have them hold pencils or rules in a vertical position. Let two or three draw vertical lines on the board to be tested by the teacher with a plumb line. Make sketches of vertical things, such as telegraph poles, window, lamp-posts, fences, ladders or chairs made with sticks or splints.

*Note.*—Let the work in representation this term be from objects rather than from the blackboard drawings.

4. Teach horizontal, using a similar method.
5. Optional lesson.

*Second week.*

1. Illustrative drawing or cutting.
2. Cut letters, using only vertical and horizontal lines, e. g., L, T, H, etc.
3. Draw these letters.
4. Construct fences, ladders, etc., with pegs, sticks, or splints and sketch with lead pencil. Aim to represent the object constructed.
5. Optional lesson.

*Third week.*

1. Illustrative drawing or cutting.
2. Teach oblique, using such methods as have been suggested for vertical and horizontal.
3. Cut straight-line letters, e. g., A, Y, M, W.
4. Draw these letters.
5. Make sketches involving oblique lines at various angles from objects constructed with sticks, splints, or pegs.

*Fourth week.*

1. Illustrative drawing or cutting for practice in vertical and horizontal lines.
2. Show the children how to make a picture of a simple house by nailing pegs or splints. If time allows have them make more than one house, e. g., one taller than the other. Be particular about having vertical edges represented by pegs, or sticks in right position.
3. Have the children make a freehand cutting of a house.
4. Make sketches of different shaped houses constructed with sticks, pegs, or splints. Let some children work at the blackboard while other work at their desks.
5. Optional lesson.

## MARCH.

*First week. (Design.)*

1. Have the children practice repeating a simple unit, counting in unison with the teacher as they draw. The first results on paper are of secondary importance. The main purpose is that the children, after some weeks of practice, gain ability to repeat forms in time with a rhythmic count as they gain ability to keep step in marching.
- 2, 3, and 4. Make freehand pencil and crayon sketches of flags. Provide each pupil with flag outlines furnished in October to serve as models.
5. Optional lesson.

*Second week.*

1. Repetition of units. See Lesson 1, first week.
- 2, 3, and 4. Make sketches of the simpler toys or continue sketching flags or objects constructed with pegs, sticks, or splints.
5. Optional lesson.

*Third week.*

1. Repetition of units. (Pl. I.) See Lesson 1, first week.
- 2 and 3. Sketch from pussy willow, alder catkin, or similar material. Use colored crayons or chalk.
4. Lay lentils or peas to represent a border of flower forms.
5. Optional lesson.

*Fourth week.*

1. Repetition of units. (Fig. 3.)
2. Draw a row of plants or flowers with colored crayons, repeating the same form so as to suggest a border.
- 3 and 4. Draw plants or flowers with colored crayons.
5. Optional lesson.

## APRIL.

*NOTE.—Color.* The time devoted to the color lesson each week may, at the option of the teacher, be spent in short periods each day testing the children in the recognition of the standard colors. It is recommended that the teacher fill in with crayons, squares or circles not less than 3 inches in size, to represent each standard color. These may be used to identify standard colors in birds, flowers, fabrics, colored paper, and any other objects available for color study. They should serve to impress the intensity of the pure color upon the child's mind.

*First week.*

1. Repetition of units. See Lesson 1, first week in March.
- 2, 3, and 4. Making sketches of simple flat objects or objects constructed with sticks, pegs, or splints.
5. Color. Teach the standard red.

*Second week.*

1. Repetition of units. See Lesson 1, first week in March.
- 2, 3, and 4. Make sketches of twigs having opening buds. Aim to represent characteristic direction, position, and growth of stems. Lead pencil and crayon.
5. Review standard red and teach standard orange.

*Third week.*

1. Invention of units. Draw on the blackboard small, simple units composed of two or more straight lines parallel or crossing, or curved lines in forms suggesting simple flowers or leaves. Let children copy these and invent others.
2. Experiment with these to make a border, using lentils or peas to form the units.
- 3 and 4. Application of an original border to decorate one of the following objects: The drawing portfolio or cover for other school work.
5. Review standard orange and teach standard yellow.

## MAY.

*First week.*

1. Repetition of units. (Fig. 8.) See Lesson 1, first week in March.
2. Practice printing initials.
3. Print initials on the drawing portfolio or cover.
4. Color. Review standard yellow and teach standard green.
5. Draw plants, flowers, and other available material.

*Second week.*

4. Continue drawing of plants, flowers, and other available material.

*Third week.*

- 1 and 2. Talk about a room calendar for June. Let all the children try cutting large letters J-U-N-E. Select the best of each letter and paste in place on a large calendar mount.
- 3 and 4. Talk about suitable decorations, e. g., flowers of June, as daisies, dandelions, buttercups; or games, as fishing, jumping rope, etc. Decide on some one thing, e. g., daisies. All the children try cutting large daisies, from flowers or pictures. Save all good cuttings.
5. Color. Review standard green, teach standard blue.

*Fourth week.*

- 1 and 2. From the cuttings made in the previous lessons select those most suitable for the calendar. Have the class try different arrangements of these on the calendar mount, leaving space for numbers. Choose the best and paste in position.

3 and 4. Have the children cut initial letters for the days of the week, e. g., S, M, T, etc.

NOTE.—Before the next lesson the teacher should plan the number and size of squares necessary to fill the space left for the figures. Allow one square to each figure.

5. Have the children draw the different numbers on squares of this size. Use the best to mount in place, and thus complete the calendar.

## JUNE.

NOTE.—Review the following each week in this month: Six standard colors, so that pupils are able to select any of these colors from assorted tints, shades or hues; horizontal, vertical, and oblique lines, so that children can readily distinguish and draw them at the blackboard or on paper with some facility.

*First week.*

1 and 2. Illustrate the letter R. For example:

"R is for Rabbit  
Who had a bad habit  
Of eating the flowers  
In gardens and bowers,  
Naughty fat Rabbit."

Let each child cut a 6-inch square from a sheet of drawing paper. From the piece left cut free-hand a smaller square for the letter. Find best placing for this in the large square (preferably near the top) and trace around it. Cut or draw an R for this space.

3. Cut rabbits in different positions from pictures, memory, or life. Choose one and mount or trace somewhere in the remaining space.
4. Color review. Naming and selecting the standards.
5. Optional lesson.

*Second week.*

1. Color review. Select standards from assorted colors.
2. Review of horizontal, vertical, and oblique. Draw at blackboard and on paper.
3. Complete the rabbit initial by adding lines to suggest flowers or grass. Use colored crayons.
- 4 and 5. Optional lessons.

*Third week. (Illustrative drawing.)*

- 1 and 2. Review of colors and drawing of lines from memory.
3. Summer games, occupations and holidays, e. g., Seventeenth of June, Fourth of July.
4. Summer vacation. Picnics. A day at the park. A day at the beach.
5. Optional lesson.

## SECOND GRADE.

Five 20-minute periods a week are allowed for drawing and one 30-minute period for manual training.

NOTE.—The chief thing is that children draw. The kind of line produced or how the pencils are sharpened or held is of slight importance. Do not be too anxious about good results at first. However small the percentage of good drawing, if it steadily increases the work is progressing as it should. Make use of any occupation that gives children practice in outlining form, such as drawing for busy work, or illustrating incidents, or cutting out pictures.

*Disposition of completed work.*—When the drawing envelopes become filled allow the children to take home completed work of the first half year.

## SUGGESTIONS.

To accomplish best results in drawing it is essential that children sit in erect position and draw freely from the elbow. The pencil should be held in a flat rather than a vertical position and back from the point about 2 inches. These habits of correct positions should be formed through frequent short drills drawing lines in different positions and may be made part of the drawing period.



## FEBRUARY.

*First week.*

1. Illustrative drawing or cutting.
2. Review vertical, horizontal, and oblique. Have children make illustrative sketches in which these lines are correctly used, e. g., in a sketch of a house interest the children in having the upright lines exactly vertical. Practice drawing vertical lines at the blackboard.
- 3 and 4. Make sketches of houses, doors, windows, fences, etc., involving horizontal and vertical lines. This lesson affords opportunities for definite observation and drawing of objects which are first constructed with sticks or splints.
5. Optional lesson.

**Manual Training.****Valentine.**

*NOTE.*—See general suggestions.

Using white drawing paper, have each child draw and cut a rectangle  $5\frac{1}{2}$  by 4 inches. Have lines ruled parallel to and  $1\frac{1}{2}$  inches from each short edge. Valentine is to be folded on these lines.

*Second week.*

1. Illustrative drawing or cutting.
2. Teach parallel—use sketches and objects. Practice drawing parallel lines at the blackboard.
- 3 and 4. Arranging sticks or splints to form objects involving parallel lines, draw the arrangements made.
5. Optional lesson.

**Manual Training.****Valentine—Concluded.**

Complete valentine. If desired flowers or hearts may be used as decoration. Patterns for the latter may be made by folding and cutting.

*Third week.*

1. Illustrative drawing or cutting.
2. Have children cut free-hand straight-lined letters, e. g., A, H, N, W.
- 3 and 4. Have the children cut the letters for the word FEBRUARY.
5. Optional lesson.

**Manual Training.****Sketch Book.**

*NOTE.*—See general suggestions.

Have a finished book to show the pupils. Take it apart before them that they may note its construction. Give each child a piece of the 6-inch by 9-inch gray drawing paper, and have him draw a line  $5\frac{1}{2}$  inches from and parallel to the best long edge, and then cut to the line. Working from the best short edge, have him then draw lines parallel to it and, respectively,  $2\frac{1}{2}$ , 5, and  $7\frac{1}{2}$  inches from it.

*Fourth week.*

1. Draw one of the flag outlines furnished last term and color with crayons, or draw a flat object involving horizontal, vertical, and oblique lines, e. g., an envelope.
2. Have each child print his first or last name.
3. Have the children make free-hand cuttings of figures between 1 and 9.
4. Print name and number the pages in the sketch book made in the manual training lesson this week.
5. Optional lesson.

**Manual Training.****Sketch Book—Concluded.**

Have papers cut on the three lines, and the three equal pieces folded separately at the center. These are then to be put together and pinned through the back to form a book which may be used for sketches. See drawing outline, fourth lesson of this week. The book may be used for an illustrated alphabet, selecting simplest letters.

## MARCH.

NOTE.—Color. The time devoted to the color lesson each week may, at the option of the teacher, be divided into short daily periods testing the children in the recognition of the light or dark tones of the standard colors. It is recommended that the teacher fill in with crayons, squares or circles, not less than three inches in size, to represent each standard color.

*First week.* (Design.)

One entire lesson each week may be given to this work in rhythm or five minutes may be taken from each daily lesson.

1. Have the children practice repeating a simple unit, counting in unison with the teacher as they draw. The first results on paper are of secondary importance. The main purpose is that the children, after some weeks of practice, gain ability to repeat forms in time with a rhythmic count as they gain ability to keep step in marching.
- 2, 3, and 4. Draw with the lead pencil and color with crayons the flags recommended for this grade; or draw flat objects involving horizontal, vertical, and oblique lines.
5. Optional lesson.

**Manual Training.****Pin Wheel:**

NOTE.—See general suggestions.

Have the children lay out and cut 5½-inch squares of white drawing paper. Diagonals should then be drawn lightly. Have squares colored with crayons, selected by pupils. Ask children to bring in sticks, skewers, or clothespins for next lesson.

*Second week.*

1. Repetition of units. See Lesson 1, first week.
- 2 and 3. Drawing flat objects in pencil outline for proportion and shape.

NOTE.—If possible have each pupil supplied with an object. Suggestions—flags, small mats, penwipers, tags, shields, paper cross forms, etc.

4. Memory drawing of last two lessons.
5. Color. Review the light and dark values of standard red and orange.

**Manual Training.****Pin Wheel—Concluded.**

Have 1-inch square tablets laid on the centers so that the corners will fall on the diagonals. Points should be made at these corners on the diagonals, and the diagonals cut down to these points. The pin wheel is then to be folded and pinned to stick, skewer, or clothespin.

*Third week.*

1. Repetition of units. See Lesson 1, first week.
- 2 and 3. Sketch with lead pencil the pussy willow, alder catkin, or similar material. Represent growth of stem and growing point of buds.
4. Lay lentils or peas to represent a border of flower forms. If this material is not available, cut or draw the flowers and follow the same plan.
5. Color. Review the light and dark values of standard yellow and green.

**Manual Training.****Easter Card.**

Have each child lay out and cut a 5 $\frac{1}{2}$ -inch by 3 $\frac{1}{2}$ -inch rectangle of drawing paper. Light lines are to be drawn  $\frac{1}{4}$  inch from and parallel to each edge, and darkened between intersections. Save these cards for drawing lesson as outlined next week.

*Fourth week.*

1. Repetition of units. See Lesson 1, first week.
2. With colored crayons apply border of plants or flowers to Easter card.
- 3, 4, and 5. Draw budding twigs with lead pencil. Aim to have each child observe and draw the characteristic growth and position of buds of the specimen he is studying.

**Manual Training.****Clock.**

For the case have each child lay out and cut a 6-inch square of gray drawing paper. Have him draw a line  $\frac{1}{4}$  inch from and parallel to the lower edge and a line 1 $\frac{1}{2}$  inches from and parallel to each vertical edge. He is then to draw vertical lines (six in all) between the lower edge and the horizontal line  $\frac{1}{4}$  inch from each vertical edge and line.

The paper is to be folded back on the long vertical lines and the central portions of each panel below the horizontal line are to be cut out between the verticals.

## APRIL.

*First week.*

1. Repetition of units. See Lesson 1, first week in March.
- 2, 3, and 4. Drawing with lead pencil and crayons objects having curved edges. Practice drawing curved lines at the blackboard.

**Manual Training.****Clock—Concluded.**

For the face, have each child cut out a circle of white drawing paper, about 2 inches in diameter, traced around any convenient form. This is to be marked like a real clock face, and then pasted onto the central panel.

*Second week.*

1. Repetition of units. See Lesson 1, first week in March.
2. Drawing twigs or grasses with lead pencil for growth.
- 3, 4, and 5. Draw the clock constructed in manual training from the object and memory.

NOTE.—Practice drawing curves at the blackboard.

**Manual Training.****May Basket.**

From white drawing paper have each child lay out and cut a 6-inch square. He is then to fold on one diagonal and then reopen. From the corners which were together have him lay off, on each edge, 2 $\frac{1}{2}$  inches. Lines are to be ruled between these points parallel to the fold, and backward folds are to be made on these lines.

*Third week.*

1. Invention of units. For detailed suggestions see Grade I.
2. Practice making units of the right size to place upon the corners of the May basket made in manual training.
3. Draw units upon the corners of the May baskets, using colored crayons.
4. Color. Review light and dark values of standard blue and violet.
5. Optional lesson.

**Manual Training.****May Basket—Concluded.**

Have four holes made in each basket 1 inch from short fold toward long fold and one-half inch from edges. Have handle of twine inserted.

NOTE.—If time permits, have the children make another from memory.

## MAY.

NOTE.—In districts where it is difficult to obtain material for nature drawing plant seeds in sawdust and make drawings of different stages of growth.

*First week.*

1. Repetition of units. (Pl. I.)  
Experiment with these over a surface, using colored crayons.
2. Color. Test for recognition of light and dark values of the standard colors.
- 3 and 4. Draw twigs having buds partly open.
5. Optional lesson.

**Manual Training.****House Front.**

Have each child lay out and cut from white drawing paper a rectangle 6 inches by 6½ inches. Have him draw a line 4½ inches from and parallel to the lower edge. Verticals are to be drawn between this line and the bottom 1½, 2, and 3 inches from each vertical edge. Horizontals (1 inch long) are to be drawn ½, 2, 2½, and 4 inches from the bottom, between the pairs of vertical lines to form windows, omitting one of the lower lines where the door is to be.

*Second week.*

- 1 and 2. Draw plants, flowers, or other available nature material with colored crayons.
- 3 and 4. Drawing objects in pencil outline for proportion and characteristic shape.
5. Color. Test for recognition of light and dark values of the standards.

**Manual Training.****House Front—Concluded.**

The center of the top edge may be found by folding the sheet. This point is to be connected by oblique lines with the outer points on the upper horizontal lines to form slope of roof. If eaves are desired, see model in department exhibit. Have upper right and left corners cut out. Door and windows should be marked out with colored crayons to indicate paneling and lights of glass. A semicircular window may be drawn in the gable. Door may be cut on one edge and top and folded back. Houses will stand up if folded back on side verticals.

*Third week. (Illustrative drawing: Occupations or stories.)*

1. Arrange street scenes, using the house fronts constructed. Draw with pencils or colored crayons.
2. **Illustrative Paper Cutting.** (Subjects: The postman, milkman, or grocer.)  
All children cut a large post with post box, the best one to be mounted on the blackboard, the bulletin board, or a large sheet of paper.  
All the children make a cutting of a postman, the best to be mounted by the teacher to make a completed picture.
3. **Paper Cutting.** (Small for individual sheet.)  
The same story illustrated in the previous lesson.  
All the children make a free-hand cutting of a post and post box, the right size to look well on a small-sized sheet of gray paper. Mount this, cut the postman, and mount to complete the picture.
4. **More Careful Study of One or Two Objects in the Story;** e. g., careful cutting of a post box, made from a copy furnished by the teacher.
5. Optional lesson.

**Manual Training.****Chicken Coop.**

*NOTE.*—See general suggestions.

Use 6-inch by 9-inch gray drawing paper. Have sheets marked out and cut 5 inches wide and full length of sheets. Have a center line drawn through the long way and a line drawn across the short way  $2\frac{1}{2}$  inches from each end and parallel to it. Across the squares thus formed diagonals are to be drawn from the ends of the center line.

*Fourth week. (Nature drawing.)*

- 1 and 2. Draw plants, flowers, and other available material.
- 3 and 4. Illustrative drawing. Street scenes. Use house fronts constructed in the manual training.

*NOTE.*—Exchange with the third grade some of the house fronts for store fronts.

5. Optional lesson.

**Manual Training.****Chicken Coop—Concluded.**

Have corners cut off on diagonals and have center lines cut as far as cross lines. Model may then be folded and pinned or pasted together. If time and ability permit, the roof and slats on the ends may be crayoned yellow, brown, or black to represent wood.

JUNE.

*NOTE.*—Give a short review of color once or twice a week this month. From a group of objects, e. g. cloth, yarns, colored papers, flowers, etc., having different colors, have pupils select the standard red, orange, yellow, green, blue, and violet.

*First week.*

- 1, 2, and 3. Have children print or write on common paper these two lines, using large printed M:

"Mistress Mary, quite contrary,  
How does your garden grow?"

Cut this paper down to an oblong of suitable size and shape to inclose these lines. Have children experiment on sheet of drawing paper, moving this oblong about to find best placing. Mount this carefully.

4. Make free-hand cutting of Mary, busy in her garden.
5. Color. Test for recognition of light and dark tones of the standards.

**Manual Training.****Fan.**

*NOTE.*—If preferred, Japanese parasol may be made instead of fan. See Outline for May, 1912, third and fourth weeks.

Give each child a piece of 6 by 9 inch paper and have him draw lines  $\frac{1}{2}$  and 1 inch from and parallel to one of the long edges. Have him apply, between these lines, with colored crayons, a border of plants or flowers. Fan is to be plaited by folding on a line drawn  $\frac{1}{2}$  inch from and parallel to one end of the sheet and then folding back and forth with first fold as a guide.

*Second week.*

1. Have children sketch or cut flowers from nature, pictures, or memory.
2. Have children cut butterflies, birds, or anything which might appear in Mary's garden.
3. Experiment with these cuttings to make a good decorative arrangement on the sheet which was prepared during the first week in June.
4. Have the best of these pasted on the sheet.
5. Optional lesson.

**Manual Training.****Flag.**

Use large drawing paper. Have 13 lines drawn  $\frac{1}{2}$  inch apart, parallel to a long edge. Have surplus strip cut-off. Have line drawn  $\frac{1}{2}$  inch from and parallel to a short end, this margin being left for possible use in attaching flag to sticks, if available.

*Third week. (Illustrative drawing.)*

1. Summer games, occupations and holidays, e. g., Seventeenth of June, Fourth of July.
- 2 and 3. Summer vacation, picnics.
- 4 and 5. Sketching printed flags, or Japanese parasol from object and memory.

**Manual Training.****Flag—Continued.**

Have a vertical line drawn down through seven of the spaces,  $4\frac{1}{2}$  inches from the margin line. Have the horizontal line between this vertical and the margin line darkened, thus laying out star field. Within this field two vertical lines are to be drawn between the second and fifth horizontal lines, one to be 1 inch from the margin line and the other to be 1 inch from the right hand side of the field. The second and fifth horizontal lines should be darkened between these verticals. Have the star field filled in with blue crayon.

*Fourth week.*

- 1, 2, 3, and 4. Illustrative drawing. Subjects selected by the children.

**Flag—Concluded.**

Have the alternate horizontal stripes filled in with red crayon, noting that the top and bottom stripes are red. Have 13 of the white gummed stars (to be supplied) put in the blue field, on or within the small rectangle, as follows: One in the center, one on each corner, one in the center of each side, and three on each of the horizontal lines. Naturally a few words regarding the significance of the number of the stars and stripes will be appropriate.

**THIRD GRADE.**

Three 30-minute periods are allowed for drawing and one 30-minute period for manual training.

**NOTE.**—Make use of any occupation that gives children practice in outlining form, such as drawing for busy work, or illustrating incidents, or cutting out pictures.

In ungraded classes where all the work indicated can not be accomplished, the illustrative sketching, object drawing, and color work should be carefully done.

**Disposition of completed work.**—When the drawing envelopes become filled allow the children to take home completed work of the first half year.

**GENERAL SUGGESTIONS.****Color.**

Establish clear concepts of the six standard colors and their light and dark tones, so that pupils are able to recognize, name, and match them in natural and artificial objects, e. g., birds, butterflies, flowers, cloth, pictures, etc.

**Nature drawing.**

Through the drawing with the lead pencil develop power to observe and draw accurately (a) characteristic lines of growth of twigs, sedges, and grasses; (b) position and characteristic shape of buds, leaves, and flowers.

## Object drawing.

1. To accomplish best results in drawing it is essential that children sit in an erect position and draw freely from the elbow. The pencil should be held in a flat rather than a vertical position and back from the point about two inches. These habits should be formed through frequent short drills, devoted to drawing lines in different positions. These drills may be done as a part of each drawing period.

2. Through arrangement and drawing of sticks, pegs, or splints to form fences, telegraph poles, houses, etc., develop power to draw from a given object involving horizontal, vertical, and oblique lines of definite lengths and in different positions.

3. Develop appreciation of characteristic shapes and proportions: (a) Through observation and drawing of objects of two dimensions, e. g., envelopes, tags, flags, mats, or similar objects; (b) through drawing the cube, square prism, boxes of different shapes, bowls, cups, jugs, bottles, and similar objects, so placed that the front view alone is visible.

Before requiring the pupils to draw these objects at a distance it is advisable to take an intermediate step in which each child is provided with an object which he places on a book and raises until he observes the front view only.

When the teacher feels that the pupils are able to represent the characteristic shape and proportions of objects near at hand they may then be drawn at a distance.

In all lessons in which objects are drawn the pupil should first observe the object, draw, compare the drawing with the object, noting and correcting errors; finally, make another sketch for improvement in shape and proportion.

It is advisable in object drawing to use the lead pencils having large leads.

Outline drawings may occasionally be filled in with crayons.

## FEBRUARY.

*First week.*

1. Illustrative drawing or cutting.
2. Review vertical, horizontal, and teach oblique by means of illustrations, sketches and study of objects.
3. Review of vertical, horizontal, and oblique. Make sketches of flat objects in pencil outline, e. g., card, envelope, penwiper, mat, flag, tag, shield.

**NOTE.**—Encourage each child to bring to the drawing lesson an object similar to one of those suggested. After each sketch the pupils may exchange objects. Observe the following steps in the lesson:

- (a) Observation of object for proportions and shape.
- (b) Sketching the object.
- (c) Comparison between the sketch and the object to discover mistakes.
- (d) Correction of sketch.

**Manual Training.****Valentine.**

**NOTE.**—The completion of the chair is postponed until the third week this year, to allow the valentine to be completed before February 14.

Use white drawing paper if possible. Have rectangles 2 by 3½ inches drawn, cut out and placed on desks with short edges horizontal. Have vertical lines drawn ½ inch from and parallel to each long side. Between these lines have horizontals drawn 1 and 2½ inches from the best short edges. A vertical line should be drawn through the center of the rectangle thus formed and this line and the two horizontals cut to form double doors.

*Second week.*

1. Illustrative drawing or cutting.
- 2 and 3. Study lines meeting at angles. Suggest the different kinds of angles—right, acute, obtuse. First, observe the angle in objects, and then construct one with splints or sticks; make sketches of angles constructed on paper and at the blackboard.

*NOTE.*—In Lessons 3 and 4 devote some time to drawing the different kinds of angles at the blackboard and on paper.

**Manual Training.****Valentine—Concluded.**

*NOTE.*—See general suggestions.

Have second rectangles 3 by 4½ inches laid out, cut and placed on desks, with short edges horizontal. On these are to be drawn rectangles with sides and tops ¾ inch and bottoms ½ inch from adjoining edges. All rectangles may be outlined with crayon and flowers or hearts used for decoration. Patterns for the latter may be made by folding and cutting. For each valentine, two strips of paper are to be cut 1 inch wide and 2 inches long, and plaited with ¼-inch plaits. These "springs" are then to be pasted to both parts of the valentine at top and bottom.

*Third week.*

1. Illustrative drawing or cutting.
2. Stick laying and sketching of objects having different angles. Devote a few minutes to the memory sketching of different angles.
3. Sketching flat objects on front views of simple toys having different angles. Encourage each child to bring an object to draw from. Observe same steps as suggested for Lessons 3 and 4, first week this month.

**Manual Training.****Chair—Concluded.**

From the short, vertical edges have cuts made to the first vertical cross lines on the second and third horizontals, and to the second vertical cross lines on the fifth horizontal. On the outer verticals have cuts made between the second and third horizontals. On the inner verticals have cuts made between the front edge and the first horizontal and between the fourth horizontal and the back edge. Have backs folded forward on fourth horizontals. Other folds are to be made backward on first and fourth horizontals and on inner verticals. Contours of backs are to be varied by freehand cutting after experimenting with the large scraps remaining from cutting out the chair. Front laps are to be folded outside and pasted as in table.

*Fourth week.*

1. Illustrative drawing or cutting.
2. Have children lay splints to represent houses, with pitched roofs of different angles. Make a sketch of the chair constructed in manual training.
3. Have children make freehand cuttings of houses, with roofs pitched at different angles.

**Manual Training.****Note-book.**

*NOTE.*—See general suggestions.

Precede dictation by the display of a finished book and its parts. For the cover, have each child lay out and cut from gray drawing paper a rectangle 6 by 4½ inches. Have a folding-line (short dash) drawn 2½ inches from and parallel to a short edge. Have cover folded and creased with line outside. On the other short edge have a dot placed ¼ inch from each corner. On each of the long edges have a dot placed ¼ of an inch from the same corners. Have lines drawn connecting these dots and have corners cut off on the lines.



## MARCH.

*First week. (Design. Freehand drawing for proportion and characteristic shape of objects.)*

One entire lesson each week may be given to this work in rhythm, or five minutes may be taken from each daily lesson.

1. Have the children practice repeating a simple unit, counting in unison with the teacher as they draw. The first results on paper are of secondary importance. The main purpose is that the children, after some weeks of practice, gain ability to repeat forms in time with a rhythmic count as they gain ability to keep step in marching. (See Plate I.)
- 2 and 3. Draw rectilinear objects in silhouette for proportion and characteristic shape, e. g., cube, square prism, box. Use black crayon or ink.

**NOTE.**—Have each child supplied with a model from which to draw. Read suggestions upon object drawing at the beginning of the February Outline.

**Manual Training.**

**Notebook—Concluded.**

For the pages, have each child lay out and cut, from white drawing paper, one or two rectangles 4 by 4½ inches. Have these folded to bring the 4-inch edges together. These pages are to be tied into cover with twine, leaving long end to tie around book. Edge of cover, having clipped corners, is to be folded over to form flap. Have twine wound around and tied to complete. Simple lettering may be added if desired.

*Second week.*

1. Repetition of units. See Lesson 1, first week.
- 2 and 3. Drawing in silhouette objects for proportion and characteristic shape. Have each child supplied with an object.

**Manual Training.**

**Drinking Cup.**

Have each child construct and cut from gray drawing paper a 6-inch square. Have the squares folded on one diagonal and placed with the right angle at the top. On the right and left edges have dots placed 2½ inches from the vertex. Have each lower corner folded to the dot on the opposite side, folding one corner forward and the other backward and show that raw edges, just folded, are parallel to the bottom fold. Have upper corners folded into the triangular pockets, one on the front side and one on the back.

*Third week.*

1. Repetition of units. See Lesson 1, first week.
2. Sketching lines of growth in twigs, stems, sedges, or grasses with the lead pencil. Have each child supplied with a specimen, so that he may be encouraged not only to observe more carefully, but to compare his drawing with the object to discover incorrect judgment of growth and thickness.
3. Make sketches of soldier caps constructed.

**Manual Training.**

**Soldier Cap.**

From a newspaper have a square made. As in drinking cup, have this folded on one diagonal, and the raw corners folded over to the opposite sides, bringing the open edges parallel to the original diagonal fold. Have the caps finished as were the drinking cups.

*Fourth week.*

1. Repetition of units. See Lesson 1, first week.
2. Draw a row of plants or flowers with colored crayons, repeating the same form to suggest a border.
3. Draw a repetition of units on the Easter card so as to form a border between the parallel lines.

**Manual Training.****Easter Card.**

Have each child lay out and cut a 5 $\frac{1}{4}$ -inch by 3 $\frac{1}{4}$ -inch rectangle of white drawing paper. Light lines are to be drawn  $\frac{1}{4}$  inch and  $\frac{3}{4}$  of an inch from and parallel to each edge, and these lines darkened between intersections to form a double border. Use these cards for Drawing Lesson 3, this week.

## APRIL.

*First week.*

1. Repetition of units. See Lesson 1, first week in March.
- 2 and 3. Drawing with lead pencil objects for proportion and characteristic shape.

**NOTE.**—When the pupils arrive at the point where they can represent the proportions and characteristic shape of objects near at hand (where each pupil has an object), have them draw objects at a distance.

**Manual Training.****Shield.**

Have each child draw and cut a rectangle 4 $\frac{1}{2}$  by 3 $\frac{1}{2}$  inches, and place it vertically on the desk. A horizontal line is to be drawn across it 1 $\frac{1}{2}$  inches from the top. On this line, and on the bottom edge, points are to be placed  $\frac{1}{2}$  inch apart and connected by vertical lines.

On vertical edges have points placed  $\frac{1}{2}$  inch from the top and have rectangle folded backwards on imaginary vertical center line. Top is to be cut from points on edges to top of folded edge, and bottom is to be cut from ends of horizontal line to bottom of folded edge. Have shield opened up and two equilateral triangles drawn in, one over the other, to form star. Colored crayons may be used to color this star blue and the alternate stripes red, the edge stripes being left white.

*Second week. (Nature drawing.)*

1. Repetition of units. See Lesson 1, first week in March.
2. Draw twigs with lead pencil and crayon for comparative growth of buds, e. g., pussy willow, alder catkin, maple, etc.
3. Draw the shield made in manual training. Furnish each child with a model from which to make a free-hand sketch.

**Manual Training.****May Basket.**

From a large sheet of white drawing paper have each child lay out and cut an 8 $\frac{1}{2}$ -inch square. Folding lines (short dash) are to be drawn 2 $\frac{1}{2}$  inches from and parallel to each edge. Have basket folded and creased on each of these lines.

*Third week.*

- 1 and 2. Continue studying and drawing with lead pencil and colored crayons to represent growth of stems and buds.
3. Make borders for the May baskets made in manual training.

**Manual Training.****May Basket—Concluded.**

Have baskets opened out flat and folded, first on one diagonal and then on the other. A hole is to be made on each diagonal,  $\frac{3}{4}$  of an inch from the corners. Running long double lengths of twine through the holes will form handles and complete the baskets.

**NOTE.**—If time permits, have each child make another from memory.

## MAY.

*First week. (Single ornament, around a center.)*

1. **Invention of Units.**

Draw on the blackboard large, simple units; e. g., start with a mark for the center, arrange curved or straight lines about it to suggest a flower form.

2. **Paper Cutting.**

Show the children how to cut similar units by folding paper.

3. **Represent the proportion and characteristic shape of objects in outline and color.****Manual Training.****Store Front.**

Have each child lay but and cut a rectangle  $6\frac{1}{2}$  by  $4\frac{1}{2}$  inches and consider the best long edge as the bottom of the store front. Have him draw a vertical line  $1\frac{1}{2}$  inches from each short edge. A horizontal line should then be drawn  $3\frac{1}{2}$  inches from lower edge. Other horizontal lines extending only between the two verticals should be drawn  $\frac{1}{2}$ ,  $1\frac{1}{2}$ ,  $2\frac{1}{2}$ ,  $3\frac{1}{2}$ , and  $4\frac{1}{2}$  inches from the lower edge. Have verticals drawn as follows: Between second horizontal and lower edge,  $\frac{1}{2}$  and  $1\frac{1}{2}$  inches from one vertical to form door; between first and second horizontals,  $1\frac{1}{2}$  and  $3\frac{1}{2}$  inches from same vertical to form show window; and between third and fourth horizontals,  $\frac{1}{2}$ ,  $1\frac{1}{2}$ ,  $2\frac{1}{2}$ ,  $3$ , and  $3\frac{1}{2}$  inches from same vertical to form upper windows.

*Second week.*

1 and 2. **Drawing with pencil and crayons the tulip, jonquil, or narcissus.**3 and 4. **Represent the proportion and characteristic shape of objects in outline and color.****Manual Training.****Store Front—Continued.**

From each upper corner have small rectangles cut out. Door may be cut on one side and top, and folded back, or  $\frac{1}{2}$  inch may be left at the bottom for steps and three sides cut. The sides of show window may be cut and a horizontal line between to form display counter and awning. Have the lower part folded backward and the upper part forward. The two rectangles at the sides should be folded backward to form the sides of the store. The projecting upper part should be folded forward on its lower and backward on its upper line.

*Third week. (Illustrative drawing: Relating to transportation.)*

1. **Illustrate a story told or read for language, or draw such subjects as cars, boats, motors, and other vehicles.**2. **Paper Cutting. (Large for blackboard.)**

Use the same story or subject as in lesson 1; e. g., all children cut a large electric car, the best one to be mounted on the board, bulletin board, or large sheet of paper. All the children cut people running toward the car, the best to be mounted by the teacher to make a completed picture.

3 and 4. **Represent the proportion and characteristic shape of objects in outline and color.****Manual Training.****Store Front—Concluded.**

Door and windows should be crayoned to indicate paneling, lights of glass, awnings, blinds, steps, and fruit, or vegetable display.

*Fourth week. (Nature drawing.)*

1. **Represent growth and color of tulips or other available flowers.**2. **Make memory drawing of plants or flowers used in lesson 1.**3 and 4. **Continue drawing plant forms or draw objects in pencil outline and color for proportion and characteristic shape.**

**Manual Training.****Auto Truck.**

For the truck body, have each child draw and cut from a sheet of the 9 by 12 inch drawing paper a rectangle,  $4\frac{1}{2}$  by  $10\frac{1}{2}$  inches. Parallel with the best long edge, which will be the bottom of the truck, have him draw horizontals  $\frac{1}{2}$ ,  $1\frac{1}{2}$ , and 2 inches from it. Parallel to one vertical edge (the front of the truck) have him draw lines  $\frac{1}{2}$  and  $2\frac{1}{2}$  inches from it, extending across entire height of paper, and other verticals (twelve in all), alternately 1 inch and  $\frac{1}{2}$  inch apart, beginning from second long vertical and extending between first and third horizontals.

JUNE.

Topics: Illustrative drawing; street scenes; general review of color.

**NOTE.**—The review in color should consist of the six standard colors and their tints and shades. This may consist of matching with crayons objects having tones of the standards, and identifying them in collected objects.

*First and second weeks.*

*Illustrative drawing.*—Arrange the store fronts and automobiles to form street scenes. Draw these with crayons. Variety of buildings may be obtained by exchanging some of the store fronts for houses constructed by the second-grade pupils.

**Manual Training.****Auto Truck—Continued.**

Have front lower rectangle cut and another at the rear lower corner formed by the first horizontal and a vertical drawn  $\frac{1}{2}$  inch from the edge. The third horizontal is to be cut from the rear as far as the first long vertical, and this vertical from the top to the upper horizontal. The remaining upper part forms seat, hood, etc. Have long rectangles on upper part of truck body cut out, leaving  $\frac{1}{2}$ -inch squares to represent posts.

*Third and fourth weeks.*

General color review and illustrative drawing.

**Manual Training.****Auto Truck—Concluded.**

It is earnestly desired that, during the remainder of June, the manual-training periods be used by the children in carrying out the auto-truck problem still further, but as their individual ideas direct instead of from dictation. The truck bodies may be mounted, and such parts as steering gear, fenders, etc., can be made to measurement and added. Wheels may be traced around convenient forms and pasted to side of truck in proper position; chauffeurs, lights, and freight may be cut free-hand, and lettering and coloring added. Pupils should be encouraged to note and work out all these details for themselves.

**WORCESTER, MASS.<sup>1</sup>**

Separate mimeographed sheets are issued as required. Color work is done in all grades: Crayons in grades one to three, inclusive; water color in grades four to eight, inclusive, both in high schools.

Illustration is taught in grades one and two; object drawing in all grades, including high schools; perspective in grades four to eight, inclusive, and in high schools; design throughout. In connection with our work we also include lessons in home furnishing in grades six to eight, inclusive, and in high schools.

Typical problems in design and color in grammar grades are—in grade five, decoration of linen mat 9 by 9 inches; grade six, decoration of small wood picture frame; grade seven, denim pillow 18 by 18 inches; grade eight, decoration of wood box 6 by 6 by  $2\frac{1}{2}$  inches. In each grade standard designs are given and original modifications made by the pupils.

<sup>1</sup> Edward H. Thornhill, supervisor.

In our study of home furnishing, talks concerning good taste are given, and each pupil makes a scrapbook of clippings of illustrations of good and "not so good" objects, such as chairs, tables, lamps, floor coverings, etc. We consider this of much more value than the so-called picture study.

Perspective in the higher grades includes not only drawing from objects, but also the application of the laws of perspective in drawing from memory and imagination simple objects in various positions as described orally by the teacher.

From the foregoing it will be seen that we do not cover as much ground as some cities. We are more nearly convinced, however, each year that it is better to do a few things reasonably well than to do more things indifferently. To speak fluently in the graphic language, much practical drill is absolutely necessary.

### SPRINGFIELD, MASS.

#### "Art and Handwork."

#### GRADE I.

#### SEPTEMBER AND OCTOBER.

NOTE.—References to handwork are made in the larger type.

#### BLACKBOARD DRAWING.

Aim for free movement and large drawings.

Give all the children practice in drawing circles, straight lines in different positions, curves of force, and sedges or grasses in which the curve of force appears.

*I A.* Pupils may try making large drawings on long, narrow pieces of paper.

#### ILLUSTRATIVE DRAWING.

*I B.* Make simple backgrounds to represent sky and ground or floor and side wall, using flat, delicate tones. Cut and paste or draw the figures against this background to complete the illustration for some poem, story, scene, or sport.

*I A.* Using manila paper, make a simple picture to represent a fall day. The sky and ground may be represented in flat, delicate tones. Against this background draw a tree in its gay fall coloring and add one other accessory, such as a fence, wall, road, distant building, or trees.

Free cutting of objects or figures referred to in stories that have been read in class, and modeling in plasticine.

#### FOLIO.

One nature drawing from *I A.* One illustration. One free cutting, mounted.

We present to the teachers of the first grade a suggestive outline of work in drawing, color study, and illustration. Teachers are not obliged to follow closely the above suggestions, but are encouraged to work along original lines. The age and ability of the pupils will determine the amount of work that can be accomplished or even attempted.

#### NOVEMBER.

#### OBJECT DRAWING.

Aim for character and general proportions. Draw some of the simple fruits or vegetables that appear at the harvest season, or those that may grace the Thanksgiving table, such as the orange, lemon, apple, turnip, beet, or potato. Use colored crayons or colored chalks.

Modeling some of the fruits or vegetables from plasticine, and free cutting of the fruits or vegetables or objects associated with Pilgrim or Indian life, are suggested.

#### CONSTRUCTIVE DRAWING.

Practice measuring with the width of the ruler, and drawing parallel lines. Repeat the same exercises, and make a cover for a Thanksgiving souvenir. The inside leaves of the souvenir booklet may contain drawings or cuttings of the fruits or vegetables of the harvest season, or drawings or cuttings of the two types of early American homes—the wigwam and the log cabin.

#### ILLUSTRATIVE DRAWING.

Continue and develop the making of backgrounds for pictures with the pasting of figures and accessories to complete the illustration, or, better, draw the figures and accessories against the background to complete the illustration.

#### FOLIO.

One drawing of a single fruit, or one drawing of a single vegetable, made with chalk or colored crayons. One Thanksgiving souvenir booklet. One illustrative drawing. One free paper cutting mounted.

C. Edward Newell, supervisor.

## DECEMBER.

**Aim:** for good simple construction and proper relation of parts. Review terms of position and relation, center, above, below, left, upper, lower, right, and corner.

Make some decoration for the Christmas tree, such as a lantern, star, chain, cornucopia, or box.

One simple box or cornucopia suitable for the season is to be constructed and properly decorated by each pupil. Make this box or cornucopia first from drawing paper, then repeat the construction, using the special paper furnished for the purpose. Begin this work immediately after Thanksgiving.

**DESIGN.**

Practice simple units of design, composed from straight lines, circular spots, and groups of lines. Use these units as decoration for the required piece of Christmas handwork. The units may also be used as decorations for other simple Christmas gifts, booklets, cards, or calendars.

**ILLUSTRATIVE DRAWING.**

Try an illustrative sketch, such as Santa Claus in some commonly imagined situation, the Christmas fireplace with stockings, the anticipated Christmas tree.

**FOLIO.**

One duplicate of each piece of constructive or applied design, finished during the month of December. One illustrative sketch.

## JANUARY, FEBRUARY, AND MARCH.

**PICTORIAL DRAWING.**

**Aim:** Closer observation and clearer imagination of objects and conditions.

During January we will attempt to draw single objects; during February, groups of objects; and during March, living objects. All of these drawings will be done as single studies or as paper cuttings first, and then repeated in the illustrative drawing when picturing scenes from some story, rhyme, or poem. Relate all of this representation and pictorial drawing as closely as possible to the interests of the child.

**Method:** Select some story, such as the story of the Three Bears, Red Riding-hood, The Little Red Hen, Three Pigs, Old Woman and Her Pig. These stories may be used as oral language, for dramatization, drawing, and constructive work.

**OBJECT DRAWING.**

Make large simple drawings from single objects, furniture, or familiar household utensils that are mentioned in the selected story or stories, or that the children may imagine or suggest would be needed by the characters in the story. Use toys and actual objects as models from which to draw. Suggestive list: Basket, pail, teapot, cup, bowl, spoon, pitcher, kettle, stove, bed, chair, table, candlestick, door, window.

**I B.** Oilcloth mats and splints may be used as an introduction to weaving where class has not had kindergarten.

**I A.** Illustrate one of the reading stories by fitting up two cardboard boxes as rooms or scenes. The boxes will be supplied. The work involves free cutting for trees, characters, or animals; paper furniture making; plasticine modeling of dishes, etc.; decorations, and rug weaving on wood looms. Allow three months for this work.

A lesson in planning the color and the placing for the border of the rug should be given previous to the weaving.

**GROUPED OBJECTS.**

**I A.** Make simple drawings to illustrate the outside appearance of the home of the characters from some one of the selected stories. This illustrative sketch may include the sky and ground, the building and some accessory, such as a tree or trees, path, road, fence, or wall.

**Suggestive list:** Wooden, log, stone, or brick house, as the home of Golden Locks, The Three Bears, Red Riding-hood, the Grandmother, The Old Man Who Found the Coin.

The cabbage, straw, stick, or glass house that was built by the three pigs. The load of straw, sticks, or cabbage from which the three pigs built their homes. The home may be drawn as it would appear at various seasons of the year.

**ANIMAL DRAWING.**

Make simple drawings and free cuttings of wild or domestic animals, pets, birds, or fowls. Make these studies from the animals from pictures, or from memory after observing the animal or fowl.

**ILLUSTRATIVE DRAWING.**

Make illustrative sketches to picture some scene from a selected story. This illustration should include drawings of some of the objects that have been done as single studies and at least one character from the story. The sketch may represent the interior of a room or home.

**FOLIO.**

One drawing of a single object. One drawing of grouped objects. Two illustrative sketches. One drawing or cutting of an animal or fowl.

*I. B.* Pupils who enter school in February can not be expected to take up the work planned for *I. A.* These pupils should be given the blackboard drawing, such as that assigned for September and October, the making of simple backgrounds for illustrative drawing, and the sketching of single animals, fowls, or birds.

**FOLIO.**

One illustrative drawing. One drawing of an animal, fowl, or bird.

## APRIL, MAY, AND JUNE.

**NATURE DRAWING.**

*I. A.* Aim: Character and growth. Make drawings in color of the flowers as they come. Draw flowers of bold character, such as the dandelion, daisy, buttercup, or tulip.

**ILLUSTRATIVE DRAWING.**

Make illustrative sketches suggested by such subjects as the Coming of Spring; Arbor Day; April Showers; Gardening; Memorial Day; Circus, or the Circus Parade.

**COLOR STUDY.**

*I. A.* Teach the colors R, O, Y, G, B, V. Arrange a sheet showing these six colors that shall be beautiful and pleasing, though extremely simple.

**DESIGN.**

By drawing with the crayons on folded paper, compose units of design in successive steps, element by element. Use the term repeat, having the class copy first a border and then a surface repeat. After the pupils can produce a satisfactory result using the folded paper, have them use paper on which they have placed the centers for the units only. Repeat the same exercise, using the top or side view of some familiar spring flower as a unit of design.

Construct a simple folio from a single folded sheet of paper and decorate the cover with one of the line and spot units or one of the units suggested by a spring flower. The applied design for the folio may take the form of a border or a surface repeat. Note carefully the types of folios suggested at teachers' meetings and shown in the Manual Arts Exhibit. This folio should be designed for a special purpose—to hold the spring nature drawings. Plan the size of the nature drawings and the mounting of the same to fit the folio. The folio and nature drawings should be a complete and pleasing whole.

**OPTIONS.**

Make and decorate a simple paper napkin, mat, doily, bookmark, or napkin ring, using an abstract or floral unit as a decoration.

**FOLIO.**

One design for a border, one design for a surface repeat. These may be either abstract or floral units. One complete folio. One other piece of applied design.

*I. B.* Pupils in this grade should continue the illustrative drawing and free paper cutting. They may attempt some of the nature drawing and one very simple piece of applied design.

One illustrative drawing. One nature drawing. One piece of applied design.

## GRADE II.

## SEPTEMBER AND OCTOBER.

*NOTE.*—References to handwork are made in the larger type.

**BLACKBOARD DRAWING.**

Aim for free movement and large drawings.

Give all the children practice in drawing circles, straight lines in different positions, and curves of force.

**NATURE DRAWING.**

Aim for growth and movement.

*II. A.* and *B.* Draw grasses, sedges, or rushes, using colored crayons.

*II. A.* Try in one of the sheets to pleasing proportions or make one of the drawings within a frame of pleasing proportions.

**COLOR STUDY.**

*II. A.* and *B.* Review the six colors R, O, Y, G, B, V.

*II. A.* Teach tints and shades. Arrange a sheet showing a full color, a tint, and a shade of the same. Make this a beautiful sheet, both in color and arrangement. Try toning sheets of paper with flat washes of very delicate tints of water color.

*II A.* Use these tinted papers as wall or floor coverings for the doll house to be furnished as a study of the modern home. Simple furnishings; not too many.

Electives: Weaving doll clothing and sample check patterns.

**PRINTING.**

*II A.* Practice the printing of single letters. Before the end of October each child should be able to creditably print the first letter of his last name. Have at least one nature drawing signed with this initial.

**ILLUSTRATIVE DRAWING.**

*II A and B.* Make pictures illustrating some fall scene or story. Keep the figures and accessories simple and draw them into the picture rather than trace or paste them.

**FOLIO.**

One nature drawing, unmounted. One mounted or framed nature drawing. One color study sheet. One illustration.

*II B.* Construction of shelters as described in the geographical reading, as Indian wigwam, of cloth and twigs; Eskimo igloo, of sand, clay, plasticine; Arabian tent, of cloth and sticks; palm trees; Chinese or Japanese house; Dutch house or windmill. These are to be done as group work in preparing fittings for the sand table. See "Constructive Work," teachers' reference library.

NOVEMBER.

**OBJECT DRAWING.**

Aim for character and general proportions.

Try some of the simple fruits or vegetables that appear at the harvest season, or those that may grace the Thanksgiving table, such as the banana, pear, orange, lemon, apple, turnip, beet, potato, or carrot. Use colored crayons or colored chalks. Try free cutting of the fruits or vegetables or objects associated with Pilgrim or Indian life.

*II A.* Pupils will devote part of November, December, and January to completing the furnishing of the doll house as a modern home.

*II B.* Pupils will continue the study and construction of some type of shelter referred to in the geographical reading.

Elective: Spool knitting as "seat work." Use for mitten cord, mop, or reins.

**ILLUSTRATIVE DRAWING.**

The illustrative sketch for this month may picture a Thanksgiving or harvest scene. The Pilgrims or the Indians, the Barnyard, the Mayflower at Anchor, the Home of an Early Settler, the First Thanksgiving, or some form of shelter with appropriate setting, about which the children have been reading.

**FOLIO.**

One drawing of a single fruit or one drawing of a single vegetable, using chalk or colored crayons. One illustrative sketch.

DECEMBER.

**CONSTRUCTIVE DRAWING.**

Aim for good simple construction and proper relation of parts.

Review terms of position and relations, upper, lower, center, corner, edge, end, horizontal, vertical, straight, curved, and angle. Make some decoration for the Christmas tree, such as the cornucopia or box.

One simple box or cornucopia suitable for the season is to be constructed and properly decorated by each pupil. Make this box or cornucopia first from drawing paper, then repeat the construction, using the special paper furnished for the purpose.

**DESIGN.**

Practice simple units of design, composed from straight lines, circular spots, or groups of lines, practice an evergreen-tree unit or one suggested by a spray of pine. Use these units as decorations for the required piece of constructive design. The units may also be used as decorations for other simple Christmas gifts, such as a card, folder, blotter, bookmark, or sachet packet.

**PRINTING.**

*II A.* Review the printing of simple letters, arrange and print a simple card suitable to accompany a gift.

**ILLUSTRATIVE DRAWING.**

Try an illustrative sketch such as Santa Claus in some commonly imagined situation, the Christmas fireplace with stockings, the anticipated Christmas tree, the night before Christmas, Christmas morning.

**FOLIO.**

One duplicate of each piece of constructive or applied design, finished during the month of December. One illustrative sketch, if the time has allowed of this work.



## JANUARY, FEBRUARY, AND MARCH.

**PICTORIAL DRAWING.**

Aim: Clear observation and clearer imagination of objects and conditions.

During January we will attempt to draw single objects; during February groups of objects; and during March living objects, birds and animals as single studies and in the illustration of myths, legends, historical stories, or the study of shelters. Relate all the pictorial drawings as closely as possible to the study of geography and history.

**OBJECT DRAWING.**

First draw single objects and then repeat the drawing, giving a proper setting for the objects, either as a completed picture or an illustrated sketch. Use one or two figures in these groups or illustrative sketches. Select only one line of work and follow that out.

*Group 1.* (Suggested for *II A.*) Holiday experiences, sports, games, coasting, skating, the storm, building the snow man, shoveling out.

*Group 2.* (Suggested for *II B.*) Forms of shelter: Wigwam at edge of woods, wigwam by the sea, wigwam and campfire, early log shelter in a clearing, early log cabin in a clearing, the tree dwellers, the cave dwellers, Arab tent and oasis, igloo and people of cold country, a tropical home.

*Group 3.* (Suggested for *II A.*) Occupations: Select some day or days of the week and draw the household utensils used on that day. First make single studies, then grouped drawing or illustrative sketch in which a child or children are pictured as using the household utensils. This sketch may suggest the various activities that should take place in the several rooms of the doll house that we are furnishing as a modern home.

*Group 4.* (Suggested for *II B.*) Stories, myths, legends: Jack be Nimble; Rabbit and the Moon; Fox and the Grapes; Peter Rabbit.

## FEBRUARY.

*II B.* Primitive shelters as suggested in history reading: Tree dwellers, mud hut, cave dwellers, tent, cabin.

Elective: Spool work for seat work. Use as cord for mittens, mop, or reins.

*II A.* Pupils will devote part of the time each month this half year to the furnishing of the doll house as a modern home. Do not crowd too much furniture into each room. In this lesson some practice in printing with wooden pegs may be done.

Electives as in September *II A.*

**ANIMAL DRAWING.**

The animal drawing may be taken at such a time as seems best to the room teacher—either when studying some animal as science work or as review of this work, or as the drawing of a certain animal may be needed to complete some illustrative sketch. Make drawings of wild or domestic animals or pets, either from the animal itself or from pictures. Select some one bird, animal, or fowl, study it carefully, and make drawings. This drawing may be used in some consistent manner, as an Easter souvenir.

**PAPER CUTTING.**

Free cutting of single animals, objects, and groups of animals and objects may vary the work of object drawing and illustration.

**FOLIO.**

One single drawing or one paper cutting of a single object. One drawing or paper cutting of a single animal. Two grouped drawings of objects or animals or two illustrative drawings.

## APRIL, MAY, AND JUNE.

**NATURE DRAWING.**

Aim for character and growth.

Make drawings in color of the flowers as they come. Draw flowers of bold character, such as the daffodil, daisy, buttercup, or tulip.

**ILLUSTRATIVE DRAWING.**

Make illustrative sketches suggested by such subjects as Spring in the Country, Spring in the City, Plowing, Gardening, Arbor Day, the Hen and Her Family, Memorial Day, the Circus Parade, the Circus, Our Picnic.

**COLOR STUDY.**

Review the colors R, O, Y, G, B, V, full color, tint, and shade. Try tinting large sheets of paper with fine, delicate washes of water color.

Use these tinted papers for printing units of design as borders or surface repeats, by means of wooden pegs; or use the papers for drawing units of design arranged as borders or surface repeats, using colored crayons. (Some of the tinted papers may be used for making nature drawings or for mounting drawings.)

**DESIGN.**

Teach the terms repeat, balance, and unit, using wooden pegs and making prints from them. Teach the terms first with reference to border, and then with reference to a surface design. Pupils may be allowed to use the wooden pegs in occupation work, copying, or designing new units. The peg prints may also be used in decorating and arranging the number papers.

**APPLICATION OF DESIGN.**

*II A.* In this section the study of design should be directed toward the furnishing of the doll house, wall papers, draperies, mattings, and rugs.

Some of the borders or surface designs may be used as wall or floor coverings. These may be wooden peg prints or designs drawn in crayon on tinted papers.

*II B.* In this section pupils may prepare for a May or June festival. Select such articles as may be made within the time allowed for this work. The following is the list of articles appropriate for such a festival: A basket in which to carry a lunch and bring home flowers, a paper napkin and ring, and a paper doily on which to spread the lunch. The napkin ring may be made first, having a unit of design applied as a border. The tissue paper napkin may be made second, having a unit applied as a border, and modified to fit the corners of the napkin. The paper doily may come next. Use drawing paper and give careful attention to the placing of the corner units. The paper crown may follow with a unit arranged in the form of a border, the crown being made adjustable to the head size. The paper basket may be made and pasted last. The unit of design should be placed in carefully selected spots. The same unit should be used on all of these objects. The unit may be made from wooden peg prints or may have been suggested by the top or side view of some spring flower drawn with colored crayons. Attempt such part of this work as may be done within the assigned time.

**FOLIO.**

One design for a border. One design for a surface repeat. These may be done with wooden peg prints or may be floral units drawn with colored crayons.

*II A.* Duplicates of all designs used in furnishing the doll house.

*II B.* Duplicate designs of all festival furnishing.

**GRADE III.****SEPTEMBER AND OCTOBER.**

**NOTE.**—References to handwork are made in the larger type.

**BLACKBOARD DRAWING.**

Aim for free movement and large drawings.

Give all the children practice in drawing large circles, straight lines in different positions, reverse curves, and curves of force.

**NATURE DRAWING.**

Aim for growth and movement. Draw grasses, sedges, rushes, or brilliantly colored seed pods, using colored crayons. Give special attention to the working of one color over another.

In October make one of these nature drawings on delicately tinted paper or make one of the nature drawings as a pleasing arrangement within a circular or rectangular frame. Sign this drawing with one initial properly placed.

**COLOR STUDY.**

Review the six colors, R, O, Y, G, B, V, tints, shades, and teach the term hue. Teach one color family. (A full color and its two hues.) Try tinting sheets of paper with flat washes of water color. These washes should be of some delicate hue selected from the nature specimen that is to be represented upon them.

*III A.* Plan the placing, color, and width of the border of the 5 by 7 inch rug. Use one color and one of its hues.

Make a 5 by 7 inch rug with border.

*III B.* Weave a holder, plain color, 5 by 5 inches.

Elective work: Doll clothing in a mixed class. Textile samples of plaids in A and B.

**PRINTING.**

Practice printing of single letters. Pupil should sign one of the nature drawings by printing and properly placing the first letter of his last name.

**ILLUSTRATIVE DRAWING.**

Sketches of reasonable subjects, stories, scenes, or sports, as the time may allow for this work.

**FOLIO.**

One mounted nature drawing. One nature drawing framed or on tinted paper. One free cutting, mounted. One illustration, if attempted.

## NOVEMBER.

**OBJECT DRAWING.**

Aim for character and general proportions.

Draw some of the fruits or vegetables that appear at the harvest season or those that may grace the Thanksgiving table; orange, lemon, apple, banana, pear, radish, turnip, beet, cucumber, carrot, or potato. Use colored crayons or colored chalks. Try free cutting of the fruits or vegetables or objects associated with early Pilgrim life or the Indians.

**CONSTRUCTIVE DRAWING.**

*III B.* Teach or review the use of the ruler, drawing long lines to connect given points, 1 inch and  $\frac{1}{2}$  inch measure. If the time will allow, use the ruler in constructing a Thanksgiving souvenir of not over four pages. The inside leaves of the souvenir booklet may contain drawings, cuttings, or written work to illustrate the story of the Pilgrims, the early American settlers, or the first Thanksgiving.

*III A.* Practice drawing lines  $\frac{1}{2}$  inch apart and setting off points  $\frac{1}{2}$  inch apart on given lines. Make an application of the  $\frac{1}{2}$ -inch measuring in the construction of the loom. Construct a loom for 5 by 7 inch rug where needed.

**ILLUSTRATIVE DRAWING.**

The illustrative sketch for this month may picture a Thanksgiving or harvest scene, Pilgrim or Indian life, the first Thanksgiving dinner, the colonial kitchen.

**FOLIO.**

One drawing of a single fruit or one drawing of a single vegetable made with chalk, water color, or colored crayons. One Thanksgiving souvenir booklet. One illustrative sketch.

## DECEMBER.

Aim for strong, simple construction, and proper relation of parts. For Christmas work make a lantern, box, or cornucopia.

Teach or review terms of position or relation, upper, lower, center, corner, edge, end, horizontal, vertical, oblique, straight, curved, angle, right angle, diagonal, and diameter. Make some decoration for the Christmas tree, such as box, cornucopia, or lantern.

Make the object first from drawing paper, then repeat the work, using the special paper furnished for the purpose.

**DESIGN.**

Practice simple units of design composed from straight and curved lines, circular and rectangular spots and groups of lines, or practice a unit suggested by an evergreen tree, candle, or spray of pine. Use these units as decorations for the required piece of constructive design. The units may also be used as decorations for other simple Christmas gifts, such as a card, folder, blotter, bookmark, or sachet packet.

**PRINTING.**

(This work is optional and can only be done where other work is not crowding.)

Review the printing of simple letters. Arrange and print a simple card suitable to accompany a gift.

**ILLUSTRATIVE DRAWING.**

The illustrative sketch for this month may picture Santa Claus in some commonly imagined situation, the Christmas fireplace, stockings hung for Santa, the anticipated Christmas tree, the shop windows at Christmas time, or a street scene, or gathering Christmas greens.

**FOLIO.**

One duplicate of each piece of constructive or applied design finished during the month of December. One illustrative sketch.

## JANUARY, FEBRUARY, AND MARCH.

**OBJECT DRAWING.**

Aim: Closer observation and clearer imagination of objects and conditions.

During January we will attempt to draw single objects, during February groups of objects, and during March living objects, birds, animals, or fowls.

Make large simple drawings from Christmas toys, familiar household utensils, or means of conveyance. Use objects or toys as models whenever possible, or draw from memory after observing the objects.

Suggestive list: Toys, sled, shovel, lantern, hatchet, ax, hammer; means of conveyance: automobile, electric car, hack, wheelbarrow, express car, balloon, jinnikins, Chinese junk, push cart, snowplow, sled.

Grouped objects: Make sketches to illustrate some winter scene, sport, effect of wind, rain, or snow. A means of conveyance with proper setting, a story, myth, or legend. Free paper cutting may vary the work in object drawing.

*III B.* Weaving of a holder, plain color, 5 by 5 inches. Elective work: Doll clothing in a mixed class. Textile samples of plaids in A and B.

*III A.* Weaving of rug with a unit of design in color, woven or darned in. The design to be suggested by some story in the reading. These rugs may be planned to be sewed together, arranging the design as a border or central group. The design for this work will be considered at any time when the teacher thinks the class ready to execute it.

#### ANIMAL DRAWING.

Make simple drawings and free cuttings of wild or domestic animals, pets, birds, or fowls. Make these studies from the animals, from pictures, or from memory after observing and studying the animal or fowl.

#### FOLIO.

One drawing or cutting of single object. One drawing or cutting of a single animal or bird. One drawing or cutting showing grouped objects in an illustrative sketch.

APRIL, MAY, AND JUNE.

#### NATURE DRAWING.

Aim for character, growth, and the manipulation of one color over another.

Make drawings in color of the flowers as they come. Draw some flowers of bold character and some of delicate growth.

#### ILLUSTRATIVE DRAWING.

Make illustrative sketches to suggest the coming of spring in the city, the coming of spring in the country, Arbor Day, planting, gardening, Memorial Day, circus parade, or the circus.

#### COLOR STUDY.

Review the colors, R, O, Y, G, B, V, tint, shade, and hue. Make a color family of one color and two hues, if not done in October. Make this sheet a pleasing and beautiful one. Try tinting large sheets of paper with flat, delicate washes of water color. Use these tinted papers for printing units of design as borders or surface repeats, by means of the wooden pegs; or use the tinted papers for drawing units of design arranged as borders or surface repeats, using colored crayons. Some of the tinted papers may be used for making nature drawings, or for mounting drawings.

#### DESIGN.

Teach the terms repeat, radiate, balance, and unit, using wooden pegs, and making prints from them. Teach the terms first with reference to a border, and then with reference to a surface design. Pupils may be allowed to use the wooden pegs in occupation work, practicing or designing new units.

A simple folio to hold the nature drawings or some other school work is required in this grade. Plan the folio and its contents to make a complete and pleasing whole. Use 1-inch and 4-inch measures in constructing the folio from one piece of folded paper, and the printing of some word such as May, June, Spring, or Nature. The units of design may be made from wooden peg prints or from the side or top view of flowers drawn with colored crayons. When practicable, place the units against a background which is a delicate hue of the color used for the unit. Note carefully the types of folios suggested at teachers' meetings and shown in the Manual Arts Exhibit. Pupils in this grade may make the group of objects suggested under preparations for a festival in Grade II B, using more complicated units of design than those used in Grade II B, or pupils may make and decorate a circular dolly with carefully fringed edges. The unit of design for the dolly may be either made from wooden peg prints or from floral elements suggested by some spring flower, berry, or seed. Only one piece of applied design is required, aside from the rug in III A.

#### FOLIO.

One design for a border and one design for a surface repeat. These may be either wooden peg prints or units suggested by the top or side view of spring flowers. One complete folio. One circular dolly, or one set of festival fittings, if these pieces of applied design can be made during the time allowed.

### GRADE IV.

SEPTEMBER AND OCTOBER.

NOTE.—References to handwork are made in the larger type.

#### NATURE DRAWING.

Aim for vigorous growth and character.

Pleanty of serious practice in proper handling of the brush will aid materially in forming good habits and producing satisfactory results. First work with brush and ink. When proper handling of the brush is gained, use water color. Use clean color and paint directly from the palette. Gray paper for all ink work, and manila, white, or tinted paper for painting.

Draw the milkweed, bush clover, narrow-dock seed stalks, large rose hips, poppy seed stalks, mullein stalks, grasses, sedges, rushes, goldcrod, plantain stalks, marigold, rattle box, oats, linden seed, or smartweed.

*IV B.* Ink drawings or color paintings without tinted backgrounds.

*IV A.* Monochrome drawings or color paintings against a tinted background.

**COLOR STUDY.**

Review the six colors, R, O, Y, G, B, V, tints, shades, and hues.

IV A. Try laying flat washes of water color of delicate tones against which to paint nature studies.

**PRINTING.**

Practice printing one letter (preferably an initial) within a small rectangle. Use one of these printed letters in signing one of the nature drawings.

**FOLIO.**

Two mounted nature drawings in ink or monochrome. One mounted nature drawing in color signed with one printed initial. This painting may have a delicately tinted background. No crayon drawings, all brush work.

IV A and B. Kite. To be made of tinted paper, on two reeds, butterfly or insect shape. Tinted paper will be supplied.

An elective may be arranged to substitute for the kite.

Elective Work: Cord work; concrete work, such as making bricks for fireplace or for building; plaster work, molded or modeled; making of cardboard looms.

Fittings for the sand table to illustrate geography, to be done as group work: Arab tent and palm trees, colonial fireplace of concrete bricks, first meeting house or log house, Chinese junk or barrow. (See "Constructive Work," teachers' reference library.)

**NOVEMBER AND DECEMBER.**

In this grade the work from nature or objects should give place to constructive drawing, before the end of November, that the children may have ample time for completing their constructive design before Christmas. Aim for accurate work and proper relation of elements.

Prepare designs for the kites as soon as these are completed. Insect or grotesque motifs suggested by Japanese or Chinese prints may be used. Execute these designs in black on the tinted paper.

**OBJECT DRAWING.**

Make silhouette drawings with brush and ink from the turnip, beet, carrot, or radish (whole plant pruned). Draw a single potato, beet, or carrot, of erratic shape, using the lead pencil. In all pencil work, have the pencil held lightly and a few inches from the point. In IV B, silhouette drawings may be made with brush and ink on gray paper. In IV A, drawings may be made in monochrome against a tinted background that is related to the drawing in value and in hue. Do not confuse mediums. Select one medium only, either brush and color or pencil, and direct the efforts of the class toward the successful handling of the medium chosen. Sign the drawings with one initial, well placed.

**CONSTRUCTIVE DRAWING.**

Review the use of the ruler and teach the use of the compasses, measuring 1 inch,  $\frac{1}{2}$  inch, and  $\frac{1}{4}$  inch. Teach or review the terms horizontal, vertical, oblique, angle, right angle, center, corner, edge, diagonal, diameter, radius, circumference, triangle, square, rectangle, circle.

From an 8-inch square of paper construct a scent packet. Draw a 4-inch square in the center of the 8-inch sheet. Draw diameters of the 8-inch square. Draw a 4-inch semicircle, 2-inch radius, so as to form a quatrefoil. Cut this out, fold, and tuck in the last semicircle. Apply some simple decoration to the sachet or scent packet, to be used as a Christmas gift.

One scent packet, cornucopia, or box is to be constructed and properly decorated by each pupil. Make this box or cornucopia first from drawing paper, then repeat the construction, using the special paper furnished for the purpose.

**DESIGN.**

Practice simple units of design composed from straight and curved lines, circular and rectangular spots, groups of lines, or practice a unit suggested by an evergreen tree, candle, or spray of pine. Use one of these units as a decoration for one of the required pieces of constructive design.

**PRINTING.**

Continue to practice printing whenever the time will allow. Arrange, print, and mount a simple card of Christmas or New Year's greetings.

**FOLIO.**

One ink drawing of a vegetable, or one monochrome drawing of a vegetable, or one pencil drawing of a vegetable. One example of each piece of constructive design finished for the holiday season.

## JANUARY AND FEBRUARY.

Aim: Character and general proportions.

**PICTORIAL DRAWING.**

Make an illustrated booklet or packet on "Silhouettes." Explain the meaning of the name "silhouette" to the children and tell something of the history of this kind of representation. Show a few good illustrations and encourage the pupils to collect examples of silhouettes and to explain what their examples were used for as originals—advertising, portraits, ornament, design, illustration. Teachers who are to promote their classes should confer with the teacher who is to receive the class, and decide upon a plan of work that shall as far as possible avoid a decided change or break in the work.

Make the silhouette drawings of objects of striking form and proportions. Use brush and ink, or brush and color, or free paper cutting. First draw from shadows, then from silhouettes of objects, from imagination or memory.

Make a very simple folio from one sheet of folded paper to hold the drawings or bind them into a simple booklet. Plan every sheet to fit the folder or booklet. IV A. Arrange and print an appropriate title, properly placed. The result should be a consistent and pleasing folio or booklet. The drawings may illustrate some features of a trade, occupation, manufacture, geography, or history. Choose only one line and allow that to completion.

**SUGGESTIONS.**

Select only one of these suggestions:

The manufacture of brushes—single drawings of brushes of all kinds and for all purposes.

Foot coverings—silhouette drawings of shoes of people of various countries.

The carpenter—tools of various kinds.

Lumberman—utensils, clothing, and general equipment used in this occupation.

China—the desert, the cold country.

Objects or figures in costume referred to in the geographical or historical reading.

In place of the study of silhouettes, this time may be devoted to constructive work. Objects referred to in the historical or geographical reading.

Elective work: Concrete work, making bricks for fireplace or building; plaster work, molded or modeled; cardboard loom; cord work; textiles, samples of chevots.

## MARCH.

For this month there will be two lines of work suggested. The teacher or the class may select the one they will follow. Do not attempt both.

1. Paint single Japanese lanterns of related or contrasting color. Make a decorative treatment of two or three lanterns arranged against a delicately tinted background. This decorative treatment may take the form of a cover for language or geography work on Japan or China.

2. Study carefully the growth of local trees, trunk and lower branches. Select one or two kinds of trees for study and make careful drawings of them, using brush and ink.

Paint simple landscapes to represent different seasons of the year, localities, time of day, or condition of the weather. Try representing hills, a mountain, a lake, or a river. In all of these paintings practically three values should be used. Use one or two trees as part of these landscape compositions.

Block printing from clay, blotting paper, news board, or other substitute.

In one lesson the design appropriate for the Easter surprise may be planned. Use the most satisfactory designs of the class from which to prepare blocks. Prints for the class will be made from the three or four chosen designs. (See "Constructive Work," teachers' reference library.)

**FOLIO.**

One complete folio or booklet on "Silhouettes" if this work is taken. One painting of a lantern and one arrangement of lanterns. Or one painting of a single tree, and one landscape composition. One Easter surprise with the block-print design.

## APRIL, MAY, AND JUNE.

**NATURE DRAWING.**

Aim for vigorous growth and character.

Make drawings in color of spring flowers and growths. Sign the nature paintings with one printed initial placed near the stem. The initial should be of proportions to harmonize with the drawing and paper.

**COLOR STUDY.**

Review color terms—six colors, R, O, Y, G, B, V, full color, tint, shade, hue, value. Make a special study of values with reference to the neutral scale and a scale of values (not intensive) of one color. Have pupils use water color paint a scale of three tones of either neutral values or values of one color, giving special attention to the painting of flat tones and even intervals of value. These are not to be finished papers.

*IV B.* Make three tracings on gray paper from a rosette pattern of good proportions, 2½-inch size. Rosette patterns may be furnished to the pupils. Color these three tracings in three related values of water color, subdued, not intense colors. Paint the washes over and outside the outlines of the rosettes. Cut them out and mount them on 4 by 12-inch gray paper, 1-inch top margin, ¼ inch between rosettes. The result should be a beautiful scale of three related values of one color, signed with one initial properly placed and in harmony with the proportions of the sheet.

*IV A.* On gray or manila paper trace one 2½-inch rosette, draw one 3 inches square and one 3½ inches square. Use clear, firm lines. Tint these figures with flat washes of water color, using beautiful subdued tones of three related values. Paint over and outside the outlines. The larger square should be of the darkest value, the smaller square of the middle or the lightest value, the rosette of the lightest or middle value but of a different value from the smaller square. Cut these figures out and mount them on 6 by 7 inch gray paper, first the large square, the small square on top of this, then the rosette on top of all. The result should be a rosette with two concentric squares rendered in three related values of one color. Sign the sheet with one well-placed initial in harmony with the proportions of the paper.

#### DESIGN.

Make a more thorough study of the composition of a rosette and teach the terms repeat, radiata, balance, unit. Design rosettes that are suggested by the top view of flowers. Avoid radial designs with weak centers.

Plan and construct a simple folio of good proportions to hold the spring nature painting or other school papers. These folios may have an application of a rosette motif used as a cover design, or any other appropriate unit of design. Render the designs in two or three values of one color. The *IV A* folios may have a well-arranged and printed title.

#### FOLIO.

*A* and *B.* One painting of spring flowers or growths; one folio cover for nature work, history, geography, or writing; one design for a rosette, 2½-inch white paper mounted on 3½-inch gray paper.

*IV B.* One scale of three related values of one color (three rosettes mounted and properly signed).

*IV A.* One scale of three related values of one color (rosette and two concentric squares properly signed).

### GRADE V.

#### SEPTEMBER AND OCTOBER.

**NOTE.**—References to handwork are made in the larger type.

#### NATURE DRAWING.

Aim for vigorous growth and character.

Plenty of serious handling of the brush will aid materially in forming good habits and producing satisfactory results. First work with brush and monochrome or ink. When proper handling of the brush is gained, use water color. Use clean color and paint directly from the palette. Gray paper for all ink work, and manila, white, or tinted paper for painting.

Draw the milkweed, bush clover, narrow-dock seed stalk, large rose hips, poppy seed stalks, mullein stalks, grasses, sedges, rushes, salvia, goldenrod, plantain stalk, marigold, rattle box, oats, linden seeds, or smartweed.

*V B.* First paint with ink or monochrome, then use color with a tinted background.

*V A.* First use monochrome, then monochrome or water color with tinted background. Paint two sprays in rhythm against a delicately tinted background.

*V B.* Try pencil sketches of single leaves to show the character, curling of the edges, and feeding of the leaf.

*V A.* Try sketches of leaves in two or three foreshortened positions. Use pencil or brush and color.

Boys will make wood looms 4½ by 6 inches for the first grade. Cardboard work will follow, as, *V B*, spelling book, Christmas box; *V A*, Christmas box.

#### COLOR STUDY.

Review the six colors, R, O, Y, G, B, V, tints, shades, and hues. Lay flat washes of water color within rectangles drawn for nature studies. Teach the term value.

#### MEASURING.

Review the use of the ruler, 1½ inch, and draw rectangles of various proportions in which to draw or paint nature studies.

#### PRINTING.

Practice printing single letters (preferably an initial) within a rectangle, and use one of these printed initials with which to sign nature drawings.

#### FOLIO.

One mounted nature drawing in ink or monochrome. One mounted or framed nature drawing in color. These drawings may be of a single spray or two sprays in rhythm. The drawings should be properly signed with a printed initial.

## NOVEMBER AND DECEMBER.

In this grade, the work from objects should give place to constructive drawing before the end of November, that the children may have ample time for completing their constructive design before Christmas. Aim for accurate work and proper relation of elements.

**OBJECT DRAWING.**

Make drawings with brush and color from single vegetables of erratic form (whole plant pruned), such as the beet, turnip, carrot, or radish; or draw single or grouped vegetables, using the lead pencil. Select either brush and color or pencil as a medium and direct the efforts of the class toward the successful handling of the medium chosen. In V B, the brush drawings should be made in monochrome wash against a tinted background that is related to the drawing in value and in hue. In V A, the brush drawings may be made in water color wash, aiming for beauty and richness of color and pleasing arrangement of the sheet. Sign all drawings with one initial properly placed.

**CONSTRUCTIVE DRAWING.**

Review the use of the ruler and the compasses, measuring 1 inch,  $\frac{1}{2}$  inch, and  $\frac{1}{4}$  inch. Teach or review the terms: horizontal, vertical, oblique, angle, right angle, diameter, diagonal, arc, radius, circumference, triangle, square, rectangle, circle, ellipse, oval, pentagon, hexagon. Construct a star. Using  $2\frac{1}{2}$ -inch radius, describe a circle. Set off a radius of  $2\frac{1}{2}$  inches on the circumference of the circle, dividing it into five equal parts. Connect every other point with a straight line to form a star, using the ruler and pencil.

Boys are to construct boxes of the types suggested in the manual arts exhibit. Boys are required to supply boxes for themselves and for the girls. For V B, a square or triangular box will be suggested. For V A, a pentagonal or hexagonal box will be suggested.

**DESIGN.**

Practice units of design suitable as decorations for the Christmas boxes. These units may be suggested by the holly, pine with cone, star, candle, or evergreen tree. Use one of these units as a decoration for one of the required pieces of Christmas constructive work.

**PRINTING.**

Continue to practice printing whenever time will allow. If the time will allow, arrange, print, and mount a simple card of Christmas or New Year's greeting.

**FOLIO.**

One monochrome drawing of a vegetable, or one water-color drawing of a vegetable, or one pencil drawing of single or grouped vegetables. One example of each piece of constructive design finished for the holiday season.

## JANUARY AND FEBRUARY.

**PICTORIAL DRAWING.**

Aim: Character, proportion, and relation of parts. Explain the difference between the three types of representation—silhouette, vignette, and a complete picture. Lead the class to see the three elements that go to make up a complete picture. In a complete picture the three elements, object, ground, and background, are always present. By the end of January, pupils of this grade should know beyond a doubt that distance does two things for objects: it decreases the apparent size, and it changes the apparent level of objects in a picture. Select either group 1 or 2 for study.

V B. Boys make match strike in January. No decoration.

**OBJECT DRAWING.**

*Group 1.* Teach what is given under pictorial drawing. Make pencil drawings of single spherical or hemispherical objects, giving careful attention to the proportions, placing of shelf line, and inclosing frame. Simple foreshortening of the circle may be considered. Grouped objects: Repeat the pencil drawing of the single object and add some other appropriate object to make a pleasing group. The final drawing may be a complete picture of one or two objects, well arranged with reference to the ground, background, inclosing frame or mount, and initial signature. This drawing may be finished in lead pencil or related values in water color.

Suggestive list: Fig basket with oranges; football and baseball; school globe; paste jar and brush; large and small vegetables of erratic forms; dry measure with vegetables; closed umbrella standing against the wall; wooden chopping bowl with fruit or vegetables.

*Group 2.* Teach what is given under pictorial drawing.

Paint single Japanese lanterns of pleasing form, proportions, and coloring. Sign these paintings with an initial properly placed and printed. Make a decorative arrangement of two or three lanterns. This arrangement should show some knowledge of the foreshortening of the circle. The paper may be designed as a cover for language work on China or Japan.

V B. Boys in February: Cardboard work, as, spelling book, match strike, decorated. Electives: Notebook, cardcase, postal album.



## MARCH.

For this month there will be two lines of work suggested, teacher or pupils may select the line they wish to follow. Do not attempt both.

*Group 1.* Study and draw some animal, fish, fowl, or bird in action and in some characteristic attitude. From this drawing work out an amusing figure for a weather vane. From the class work select one or two figures. Cut the templet for the figure from 8 $\frac{1}{2}$  by 10 inch paper. Design the letters for the arms of the vane, N, S, E, from 3 by 3 inch papers and the W from 3 by 3 $\frac{1}{2}$  inch paper. Make simple, stout letters. The four most satisfactory designs will be used for all the letters cut from the metal.

*Boys V A.* Classes following group 1, will make weather vanes with wood upright and cross arms and letters and animal of "taggers" iron.

Classes following group 2 take cardboard work, as memorandum card or phone card and sketch book, to be decorated.

Electives: Magazine cover, scrap basket, cardcase.

*Group 2.* Study carefully the growth of local trees, trunk and lower branches. Select one or two kinds of trees for study and make careful drawings of them, using brush and ink. Paint simple landscapes to represent different seasons of the year, localities, time of day, or condition of the weather. Try representing hills, a mountain, a lake or river, clouds, or seacoast. In these paintings practically three values should be used. Use one or two trees as part of the landscape composition.

## FOLIO.

One pencil drawing of a single object; one composition in pencil or wash of single or grouped objects; or one painting of a single lantern and one arrangement of lanterns. One painting of a single tree and one landscape composition; or one design for a weather vane and one design for the letters E, W, N, S.

## APRIL, MAY, AND JUNE.

## NATURE DRAWING.

*V A and B.* As the time may allow make drawings in color of spring flowers and growths. Sign the paintings with one well-printed initial in harmony with the shape of the paper and placed to balance the whole.

## DESIGN.

*V B.* Review the construction of a rosette and teach the terms, radiate, balance, unit, repeat, growth while designing a rosette or other radial form that may have been suggested by the top view of a flower or a fruit section.

Boys have been constructing a match strike. Girls have been fringing a dolly. Prepare rosettes that may be used for the match strike and dolly. The design for the match strike must be contained within a 2 $\frac{1}{2}$ -inch square, the design for the dolly within a 7 $\frac{1}{2}$ -inch square, 7-inch design. Trace the designs upon the objects but do not paint them until after the study of color is completed and pupils have had all possible practice in using the brush.

## COLOR STUDY.

*V B.* Review color terms, six colors, full color, tint, shade, hue, and value. Make a special study of values of color either in relation to the neutral scale or a scale of values of one color. Do not confuse values and intensities. Paint either a neutral scale of three related values or a scale of three values of one color of reduced intensity. Paint these tones on gray or manila paper, cut out the tablets of uniform size and mount them. Sign the scale with an initial. Size for tablets,  $\frac{1}{2}$  inch by 2 $\frac{1}{2}$  inches on a mount 6 by 4 $\frac{1}{2}$  inches. Trace designs like those to be used on the match strike and dolly and practice painting them to gain power of technique before painting the match strike and dolly.

## DESIGN.

*V A.* Boys have been constructing sketch books for the use of the class in VI B. These books are to be decorated with prints made from a potato stamp, using a unit of design suggested by some tree of characteristic form. From one lesson in design enough units can be selected from the class to decorate all the sketch books. Cut a 1 $\frac{1}{2}$ -inch strip of paper from the 9-inch edge of a 9 by 6 inch sheet. Fold and cut one 4 $\frac{1}{2}$  inches square from the large piece of paper. Fold this square on one diameter and from it design, by cutting a unit suggested by some tree, retaining the original height and width of the paper square. Fold and cut 1 $\frac{1}{2}$ -inch squares from the 1 $\frac{1}{2}$ -inch strip of paper. Fold these squares on one diameter and from them design units as the large one was done. Carefully keep the 1 $\frac{1}{2}$ -inch square in its original height and width. The units of design may be printed on the books as borders, cover groups, or surface repeats for the end papers.

Girls have been hemming or hemstitching dollies. Prepare designs for these dollies, placing the interest in the corners or the center of each side. The designs may be worked out on  $\frac{1}{2}$ -inch squared paper. Both boys and girls may take this lesson in design, but only the girls will apply the designs to the dollies. The work may be carried on in a cooperative manner, the boys assisting the girls to cut the stencils and apply the designs. Stencils will be cut from the more satisfactory designs and those used for the girls' dollies. Use a color tone of related hue and value to that of the dolly.

**COLOR STUDY.**

V A. Teach the color terms as given for V B. Paint a neutral scale of five related values or a scale of five related values (not intensive) of one color. Use beautiful, subdued color. Teach the term harmony-agreement while making the scale. Paint flat tones on drawing paper, cut the tablets of uniform size and mount them. Sign the scale with an initial properly placed and printed. Tablets  $\frac{1}{2}$  inch by  $2\frac{1}{2}$  inches,  $\frac{1}{4}$ -inch space between tones, 5 by 12 inch mounting paper.

**FOLIO.**

V B. One painting of spring flowers, if time allows for this work; one scale of three related values; one design for match strike; one design for fringed dolly.

V A. One painting of flowers; one scale of five related values; one design for sketch book; one design for dolly.

**HANDWORK FOR BOYS.**

V B. *September*. Make wooden looms,  $4\frac{1}{2}$  by 6 inches, for Grade I.

Cardboard work: Spelling book; Christmas box, square or triangular; match strike, 4 by 7 inches, not decorated.

V B. *February*. Make spelling book; match strike,  $3\frac{1}{2}$  by 7 inches, to be decorated.

Elective work: Notebook, cardcase, postal album.

V A. *September*. Make wooden looms,  $4\frac{1}{2}$  by 6 inches, for Grade I; Christmas box, hexagonal or pentagonal; memorandum card or telephone call card.

V A. *February*. Make memorandum or telephone card; sketch book, to be decorated.

Electives: Magazine cover, scrap basket, cardcase, weather vane.

**GRADE VI.****SEPTEMBER AND OCTOBER.**

NOTE.—References to handwork are made in the larger type.

**NATURE DRAWING.**

Study local trees, aiming for their general massing and characteristic growth.

Show the pupils how to use the sketch book constructed in V A. Take the class out of doors and have them sketch in lead pencil from some local tree of characteristic growth. Make only one sketch on a page. From the studies made in the sketch book, have drawings worked up in the classroom, using brush and ink or monochrome. For each room there will be furnished one set of drawings of trees. Use these drawings and sketches for reference help.

Make pencil sketches of single leaves or sprays of leaves in foreshortened positions. In pencil drawing, hold the pencil lightly and a few inches from the point. No erasing should be allowed.

**FOLIO.**

One sheet of pencil sketches of foreshortened leaves. One ink silhouette drawing of a local tree. One silhouette drawing of a local tree done in monochrome wash. In VI A this monochrome drawing may be made against a delicately tinted background.

**NOVEMBER AND DECEMBER.**

V B. Aims: Rapid and accurate thinking, in three dimensions. Skill in handling simple drawing instruments. Balance of parts or elements (in lettering).

**CONSTRUCTIVE DRAWING.**

Review or teach the terms, horizontal, vertical, oblique, circle, circumference, diameter, diagonal, arc, radius, perpendicular, triangle, right angle, rectangle, square, semicircle, hexagon, square, prism, cube, cylinder, and cone. Explain the use of the drawing kit (drawing board, T square, and triangles). Demonstrate how a sheet of paper may be placed on the drawing board, fastened and used. Try a practice sheet of horizontal, vertical, and oblique lines, using the drawing kit. Explain the elements of a working drawing, and have a simple freehand drawing made at the blackboard. Make a working drawing of a simple wooden box, using the drawing kit. Make a development of the surface of the box. Give careful attention to the arrangement of the drawing on the sheet, and the lettering of the name.

**DESIGN.**

Practice the grouping of letters to form words. Practice the lettering required to complete the working drawing and letter the working drawing of the box. Arrange and letter a simple motto or card of greeting. This card should have one simple well-designed initial or capital letter. Give careful attention to the balance of the initial or ornamental letter, and the mass of the general text on the card.

**FOLIO.**

One working drawing of a box. One example of freehand lettering of a motto or card of greeting.

**DESIGN.**

*VI A.* Pupils will devote the month of November to the preparation of the designs for the objects that are to be made in the manual training classes. The boys will prepare designs for the cover of a notebook or cardcase to be made from leather. The girls will prepare designs for a needlebook or cardcase to be made from linen, or the girls may prepare designs to be executed in outline embroidery for the cooking apron. The unit should not be over 6 inches in size and may be placed in the corner of the apron. Avoid repeating same measure as in the width of the hem.

*Boys:* The front cover of the notebook is to be 5 by 2½ inches. Decide upon the necessary margins, the area for the design, where the interest may be placed, then develop the design. Send the design to the manual training shops as tracings. The complete set for the room should be inclosed in an envelope marked with the school, grade, and room, and addressed to the manual training teacher not later than the last week in November.

*Girls:* Linen will be furnished 5½ by 10½ inches, to be hemmed ¼ inch on all sides. After lining the linen, a 2-inch pocket is to be turned in at each end of the 9½ by 4½ inch piece of work, leaving an outside area for decoration 5½ by 4½ inches, which is folded on the 4½-inch diameter. Decide upon the necessary margins the area for the design, where the interest may be placed; and develop the design, which will be finished in outline embroidery. Carefully trace the designs upon the linen, using carbon paper. Mark each piece of linen with a paper, giving the girl's name and room, and send this work to the sewing teacher not later than the last week in November.

**PRINTING.**

Practice the grouping of letters to form words. Arrange and letter a simple motto or card of greeting. This card should have one simple well-designed initial or capital letter. Give careful attention to the balance of the initial or ornamental letter and the general mass of the text on the card.

**FOLIO.**

One design for a leather notebook. One design for a linen needlebook, or one design for a cooking apron, done in pencil outlines. One example of freehand lettering.

## JANUARY AND FEBRUARY

*Aims:* Critical observation of objects. Skill in representing the beauty of simple forms.

**GENERAL DIRECTIONS.**

One paper is sufficient for any one lesson. Keep to one paper till some one point is accomplished. Draw the same object more than once. Faulty or poor drawings are sometimes the result because pupils can not see the objects that serve as models. Have several duplicate objects so placed that every pupil can see at least one object readily. Avoid the eraser as the enemy of good habits in drawing. Hold the pencil lightly and a few inches from the point. Make large drawings, well placed on the paper. Teach each lesson in successive steps and have one step well accomplished before another is given. Independence in drawing will come after good habits have been insisted upon and so formed.

**STUDY OF SINGLE OBJECTS.**

Give all the pupils practice in drawing horizontal ellipses, vertical and horizontal lines. By means of hemispherical objects, circles of cardboard, hoops, wire cylinders, or diagrams on the board, teach what the term for shortening means. First lead the children to see foreshortening in circles, then to represent it, then to determine the amount of foreshortening and to make their drawings accordingly.

Study or review the drawing of single hemispherical objects, illustrating the effects of foreshortening and changes in level of circles and concentric circles.

Make careful, well-studied pencil drawings of single hemispherical or conical objects, such as the earthen preserving kettle, wash basin, wooden chopping bowl, tin or glass funnel, ordinary earthen bowl; plain glass finger bowl, tin dipper, or agate basin.

**COMPOSITION.**

When pupils can successfully draw a hemispherical object or conical object, let them try a simple group of not more than two or three objects, such as a wooden chopping bowl, with potatoes; white or yellow cooking bowl filled with apples, or with one apple near it; agate or tin saucepan with one or two beets or onions near it; a bean pot without a cover; tin dipper with two carrots near it; tin funnel and a bowl; glass bowl with two oranges or lemons near it. Give careful attention to the grouping of the objects, placing and arranging on the paper, apparent level of the objects and foreshortening of circles and concentric circles.

**FOLIO.**

One pencil drawing of a single hemispherical or conical object. One pencil drawing of a group of spherical and hemispherical objects. One sheet of collected illustrations of foreshortening of the circle.

## MARCH, APRIL, MAY, AND JUNE.

*VI B.* *Aims:* Rapid and accurate thinking, in three dimensions. Skill in handling simple drawing instruments. Balance of parts or elements (in lettering).

**CONSTRUCTIVE DRAWING.**

Review or teach the terms horizontal, vertical, oblique, circle, circumference, diameter, diagonal, arc, radius, triangle, rectangle, square, semicircle, hexagon, square, prism, cube, cylinder, and cone. Explain

the use of the drawing kit (drawing board, T square, and triangles). Demonstrate how a sheet of paper may be placed on the drawing board, fastened, and used. Try a practice sheet of horizontal, oblique, and vertical lines, using the drawing kit. Explain the elements of a working drawing and have a simple freehand drawing made at the blackboard. Make a working drawing of a simple wooden box, using the drawing kit. Make a development of the surface of the box. Give careful attention to the arrangement of the drawing on the sheet and the lettering of the same.

#### COLOR STUDY.

Review or teach color terms. Make a special study of complementary colors. Terms: Scale, value, neutral, intensities, hues, color families, intermediates, tone, complements. Make a neutral scale of three values with the white and black tones: White, light gray, middle gray, dark gray, and black. The tones for this scale may be cut out and mounted or painted within rectangles that have been carefully drawn. Any two colors which when mixed produce neutral gray are said to be complementary. Roughly, the complementary pairs are red and green, orange and blue, yellow and violet, but only certain hues of red, are complementary to certain hues of green. Let the pupils ascertain by experiment a pair of complementary colors. It seems wise to limit our experiments to ascertain complementary colors to the red and green or orange and blue groups (orange—G. B. or red—B. G.). Paint spots of the two colors and the resulting neutral gray upon paper. Cut them out carefully, mount them, signing the paper with one initial properly placed. Prepare one or two groups of two harmonious complementary colors that shall agree in value, hue, and intensity. Cut these out and carefully mount them, signing the paper with one initial properly placed. Make paintings in color of large spring flowers as these flowers are available for study. When possible select flowers in which there is a group of complementary colors.

#### FOLIO.

One working drawing of the box properly lettered. One neutral scale. One group of complementary colors with the resulting neutral gray. One group of complementary colors which are harmonious. One nature painting.

#### DESIGN.

*V. A.* Pupils will devote this month to the preparation of the designs for the objects that are to be made in the manual training classes. Boys will prepare designs for the cover of a notebook or cardcase to be made from leather. The girls will prepare designs for a needlebook or cardcase to be made from linen, or the girls may prepare designs for the cooking apron. These designs will be finished in outline embroidery. The area for the unit should not be over 6 inches square.

*Boys.* The front cover of the notebook is to be 5 by 2½ inches. Decide upon the necessary margins, the area for the design, where the interest may be placed, then develop the design. Send the designs to the manual training shops as tracings. The complete set for the room should be inclosed in an envelope marked with the school, grade, room, and addressed to the manual training teacher not later than the first week in April.

*Girls.* Linen will be furnished 5½ by 10½ inches to be hemmed ¼ inch on all sides. After lining the linen a 2-inch pocket is to be turned in at each end of the 9½ by 4½ inch piece of work, leaving an outside area for decoration 5½ by 4½ inches, which is folded on the 4½-inch diameter. Decide upon the necessary margins, the area for the design, where the interest may be placed, and develop the design which will be finished in outline embroidery. Carefully trace the designs upon the linen, using carbon paper. Mark each piece of linen with a paper, giving the girl's name and room, and send this work to the sewing teacher not later than the first week in April.

#### COLOR STUDY.

Review or teach color terms, making a special study of complementary colors. Terms: Scale, value, neutral, intensities, hues, color families, intermediates, tone, complements. Make a neutral scale of three values with the white and black tones: White, light gray, middle gray, dark gray, and black. The tones for this scale may be cut out and mounted or painted within rectangles that have been carefully drawn. Any two colors which when mixed produce gray are said to be complementary. Roughly, the complementary pairs are red and green, orange and blue, yellow and violet, but only certain hues of red are complementary to certain hues of green. Let the pupils ascertain by experiment a pair of complementary colors. It seems wise to limit our experiments to ascertain complements to the red and green or orange and blue groups (orange—G. B.) or (red—B. G.). Paint spots of the two colors and the resulting neutral gray on paper. Cut them out, carefully mount them, signing the paper with one initial properly placed. Make paintings in color of large spring flowers as these flowers are available for study. When possible select flowers in which there is a group of complementary colors.

#### FOLIO.

One design finished in pencil for the needlebook, cardcase, or apron. One design finished in pencil for the notebook or cardcase. One neutral scale. One group of complementary colors with the resulting neutral gray. One group of harmonious complementary colors. One nature painting.

## MANUAL TRAINING.

## VI B.

*Study of derrick.*—Boom, breast. Compare with traveling cranes. Compare with trolley conveyor.

*Uses of derrick.*—Transportation, building operations.

*Functions of parts.*

*Making of wooden parts.*—Mast, boom.

*NOTE.*—Simply plane to smooth the faces. Omit gauging.

*Mechanical parts.*

*Mechanical principles.*—Tension, compression, the lever, the pulley, the drum. Use simple apparatus to illustrate.

*Making of metal parts.*—Hinge, bracket, pulley.

Have careful patterns made before laying out on the metal.

*NOTE.*—A void long talks. Ten minutes is enough for one time. Begin work with as few preliminaries as possible and carefully plan for the best time to bring in the various topics.

## VI A.

*Leather work in correlation with the art department.*

1. Bookmark, given designs.
2. Watch fob, given designs.
3. Notebook cover. Individual designs prepared in the art department.

*NOTE.*—In the fall the designs are to be ready by Thanksgiving. In the spring they are to be ready the first week in April.

Where time permits, follow the leather work with the study of house framing. Divide the class into two groups and build two frames.

## GRADE VII.

## SEPTEMBER AND OCTOBER.

*NOTE.*—References to handwork are made in the larger type.

## NATURE DRAWING.

Study local trees, aiming for their general massing and characteristic growth. Draw these trees with brush and ink, monochrome, water color, or with lead pencil. Take the class out of doors to sketch from local trees as often as possible. If the first studies of trees are made in ink or monochrome, follow these with studies of the tree done in water-color wash to represent the rich fall coloring of the tree.

If the pencil is selected as a medium, give careful attention to the study of the sketches of trees furnished each room. Make finished drawings of local trees that are worked up in the class-room from pencil sketches made from the actual trees.

Make pencil sketches of single leaves or sprays of leaves in foreshortened positions. In pencil drawing, hold the pencil lightly and a few inches from the point. No erasing should be allowed.

## FOLIO.

One pencil sketch of a spray of leaves in foreshortened positions. One pencil sketch of a local tree or one water-color study of a local tree.

## NOVEMBER AND DECEMBER.

*VII B.* Aims: Rapid and accurate thinking in three dimensions. Skill in handling simple drawing instruments. Balance of parts or elements (in lettering).

## CONSTRUCTIVE DRAWING.

Review or teach the terms horizontal, vertical, oblique, circle, diameter, diagonal, arc, radius, perpendicular, triangle, right angle, rectangle, square, semicircle, hexagon, pentagon, square prism, cube, cone, hexagonal and triangular prisms, and square pyramid. Explain the use of the drawing kit (drawing board, T square, and triangles). Demonstrate how a sheet of paper may be placed on the drawing board, fastened, and used. Explain the difference between a working drawing and a pictorial drawing. Have the pupils make careful working drawings of the magazine rack, to be made by the pupils in the manual training shops. When properly lettered and finished send the boys' working drawings to the manual training teacher.

**DESIGN.**

Select either Option 1 or 2.

**Option 1.**—Have the following problem in geometry carefully worked out using the drawing kit, ruler, and compasses. In the center of a 9 by 12 inch sheet of paper draw a  $5\frac{1}{2}$ -inch circle,  $2\frac{1}{2}$ -inch radius. Inside this circle inscribe a regular pentagon. See "Construction work," teachers' reference library. Apply a simple and appropriate design as a decoration for the scent packet and use this as a Christmas gift.

**Option 2.**—Practice the grouping of letters to form words. Arrange and letter a simple motto or card of greeting. Design an initial or capital letter for the card. Give special attention to the balance and relation of the large letter and text of the card.

**FOLIO.**

One pentagonal scent packet or one festival card. One working drawing of the bookrack.

**DESIGN.**

**VII A.** Boys will prepare designs for the ends of the magazine rack, now under construction in the manual-training shops. Confine the design to the long edge of the rack, avoiding the end grain. Refer to the working drawing for the size of the end of the rack. Send these designs to the manual-training shops not later than the 1st of December. Templates should be sent in complete sets, placed in an envelope marked with the school, grade, room from which sent, and properly addressed to the manual-training teacher. Girls will prepare designs for the cookery-book covers. Surface for the design,  $4\frac{1}{2}$  by 10 inches. Pupils are not expected to save duplicate designs.

**CONSTRUCTION.**

For the construction of the cookery-book covers, each girl will need the following materials: Two pieces newsboard 10 by 5 inches; 2 pieces 10 by 1 inch; 2 pieces binding tape 11 inches long; 2 pieces binding cloth 12 by 3 inches; 2 pieces  $9\frac{1}{2}$  by 2 inches; 2 pieces cover paper 12 by  $5\frac{1}{2}$  inches; 2 pieces drawing paper  $4\frac{1}{2}$  by  $9\frac{1}{2}$  inches.

To one 10-inch edge of one of the 10 by 5 inch pieces of board fasten one of the 10 by 1 inch strips by means of binding tape, leaving one-fourth inch separation between the two boards. Turn in the ends of the tape and paste them flat. Paste one of the 12 by 3 inch pieces of binding cloth to cover the 10 by 1 inch board, letting the cloth run over onto the 10 by 5 inch board three-fourths of an inch. Clip corners, fold and paste long edge to inside of 1-inch board, then fold and paste ends inside. Paste  $9\frac{1}{2}$  by 2 inch binding cloth on inside of 1 by 10 inch board, letting cloth run over onto 10 by 5 inch board three-fourths inch. Draw a line on first piece of binding cloth one-fourth inch from the binding over the 10 by 5 inch board. Cover this board with paste, also one long edge of one piece of 12 by  $5\frac{1}{2}$  inch cover paper and paste this paper to cover the board, one long edge corresponding to the line just drawn, opposite long edge and two ends projecting over edges of board three-fourths inch. Clip corners, fold three-fourths inch long edge, then three-fourths-inch ends inside, and paste. Rub all surfaces perfectly smooth. Paste  $9\frac{1}{2}$  by  $4\frac{1}{2}$  inch drawing paper to finish inside of book one-fourth inch from edge and ends. Punch binding holes through 1 by 10 inch board  $1\frac{1}{4}$  inches from ends, first measuring with one piece of cookery note paper.

While the girls are making the cookery-book covers, the boys may be working out the plan for the pentagonal scent packet suggested for VII B. From these patterns the boys may cut and fold scent packets enough to supply the class, using tinted construction paper. Teachers in VII A sections may be allowed the rest of this half year to finish this work if necessary.

**FOLIO.**

Two pentagonal scent packets. Duplicate designs for the magazine rack and cookery book can not be made and saved in the time at our disposal.

## JANUARY AND FEBRUARY.

**Aims:** Critical observation of objects. Skill in representing the beauty of simple forms.

**GENERAL DIRECTIONS.**

One paper is sufficient for any one lesson. Keep to one paper till some one point is accomplished. Draw the same object more than once. Failures or poor drawings sometimes result because pupils can not see the objects that serve as models. Have several duplicate objects so placed that every pupil can at least see one object readily. Avoid the eraser as the worst enemy of good habits in drawing. Hold the pencil lightly and a few inches from the point. Make large drawings, well placed on the paper. Teach each lesson in successive steps, and have one step well accomplished before another is given. Independence in drawing will come after good habits have been insisted upon and so formed.

**STUDY OF SINGLE OBJECTS.**

Give all the pupils practice in drawing horizontal ellipses, vertical and horizontal lines. By means of hemispherical objects, circles of cardboard, hoops, wire cylinders, or diagrams on the board teach what the term foreshortening means. First lead the children to see foreshortening in circles, then to represent it, then to determine the amount of foreshortening and to make their drawings accordingly.

Study or review the drawing of single cylindrical and conical objects, illustrating the effects of foreshortening and changes in level of circles and concentric circles.

Make careful well-studied pencil drawings of single cylindrical, hemispherical, or conical objects, such as a glass tumbler, earthen mug, water pail, wooden butterbox, dry measure, earthen pitcher, agate or tin saucepan, earthen crock, earthen bean pot, agate basin, tin dipper, earthen bottle, or battery jar.

**COMPOSITION.**

When pupils can successfully draw a single hemispherical, cylindrical, or conical object, let them try a simple group of not over two or three objects, such as a saucepan with beets; butterbox with potatoes; dry measure filled with potatoes and one or two lying near; saucepan and large mug; tumbler and two lemons; bean pot and earthen mug; glass preserving jar and cup; tin dipper or agate basin and potatoes; battery jar and oranges.

Give careful attention to the grouping of the objects, placing and arrangement on the paper, apparent level of the objects and foreshortening of circles and concentric circles, and the initial signature.

**FOLIO.**

One accented pencil drawing of a single hemispherical, cylindrical, or conical object. One accented pencil drawing of a simple group of hemispherical, cylindrical, or conical objects.

**MARCH, APRIL, MAY, AND JUNE.**

*VII. B.* Aims: Rapid and accurate thinking in three dimensions. Skill in handling simple drawing instruments. Balance of parts or elements (in lettering).

**CONSTRUCTIVE DRAWING.**

Review or teach the terms horizontal, vertical, oblique, circle, circumference, diameter, diagonal, arc, radius, perpendicular, triangle, right angle, rectangle, square, semicircle, hexagon, pentagon, square prism, cube, cylinder, cone, hexagonal and triangular prisms, and square pyramid. Explain the use of the draw kit (drawing board, T square, and triangles). Demonstrate how a sheet of paper may be placed on the drawing board, fastened, and used. Explain the difference between a working drawing and a pictorial drawing. Have the pupils make careful working drawings of the magazine rack to be made by the boys in the manual-training shops. When properly lettered and finished, send the boys' working drawings to the manual-training shops, not later than the 15th of April. Inclose the drawings in an envelope, on which is written the name of the school, grade, and room, the envelope to be addressed to the manual-training teacher.

**COLOR STUDY.**

Review or teach color terms. Make a special study of analogous tones of color. Make a neutral scale of four values: High light, light, middle dark, gray, and black. Mount this scale on gray paper and print one initial. Make an analogous scale of three related and harmonious tones of reduced intensities. Mount these scales on gray paper and print one initial. If they prefer, pupils in this section may work out a pentagonal scent packet, based on the 5 $\frac{1}{4}$ -inch circle, cut duplicates from tinted paper and apply a simple appropriate design to be painted in analogous coloring, in place of making the analogous scales. (See "Constructive Work," teachers' reference library.)

**FOLIO.**

One working drawing of the magazine rack, properly lettered. One neutral scale properly lettered and mounted. One group of three harmonious analogous tones, or one scent packet made on tinted paper with a design rendered in analogous harmony.

**DESIGN.**

*VII. A.* Boys will prepare designs for the ends of the magazine rack, now under construction in the manual-training shops. Confine the design to the long edge of the rack, avoiding the end grain. Refer to the working drawing for size of the end of the rack. Send these designs to the manual-training shops not later than the first week in April. Templates should be sent in complete sets, placed in an envelope, marked with the school, grade, and room from which sent, and properly addressed to the manual-training teacher. Girls will prepare designs for the cookery-book covers. Surface for the design, 4 $\frac{1}{2}$  by 10 inches. Pupils are expected to save duplicate designs.

**CONSTRUCTION.**

For the construction of the cookery-book cover, each girl will need the following materials: Two pieces newsboard 10 by 5 inches, 2 pieces 10 inches by 1 inch; 3 pieces binding tape 11 inches long; 2 pieces binding cloth 12 by 3 inches, 2 pieces 9 $\frac{1}{2}$  by 2 inches; 2 pieces cover paper 12 by 5 $\frac{1}{2}$  inches; 2 pieces drawing paper 4 $\frac{1}{2}$  by 9 $\frac{1}{2}$  inches.

To one 10-inch edge of one of the 10 by 5 inch pieces of board fasten one of the 10 by 1 inch strips by means of binding tape, leaving one-fourth inch separation between the two boards. Turn in ends of tape and paste them flat. Paste one of the 12 by 3 inch pieces of binding cloth to cover the 10 by 1 inch board, letting the cloth run over onto the 10 by 5 inch board three-fourths inch. Clip corners, fold, and paste long edge to inside of 1-inch board, then fold and paste ends inside. Paste 9 $\frac{1}{2}$  by 2 inch binding cloth on inside of 1 by 10 inch board, letting cloth run over onto 10 by 5 inch board three-fourths inch. Draw a line on first piece of binding cloth one-fourth inch from the binding over the 10 by 5 inch board. Cover this board with paste, also one long edge of one piece of 12 by 5 $\frac{1}{2}$  inch cover paper, and paste this paper to cover the board, one long edge corresponding to line just drawn, opposite long edge and two ends projecting over edges of board three-fourths inch. Clip corners, fold three-fourths inch long edge, then three-fourths inch ends inside and paste. Rub all surfaces perfectly smooth. Paste 9 $\frac{1}{2}$  by 4 $\frac{1}{2}$  inch drawing paper to finish inside of book, one-fourth inch from edge and ends. Punch binding holes through 1 by 10 inch board 1 $\frac{1}{2}$  inches from ends, first measuring with one piece of note paper.

While the girls are constructing the cookery-book covers, the boys may be preparing papers for the painting of the neutral and analogous scales called for under the heading of color study. Trace the designs upon the cookery-book covers, but do not paint the designs until after subject of color has been reviewed and the scales or analogous groups of harmonious colors have been completed.

**COLOR STUDY.**

Review or teach color terms. Make a special study of analogous tones of color. Make a neutral scale of four values: High light, light, middle dark, gray, and black. Mount this scale on gray paper and print one initial. Make an analogous scale of three related and harmonious tones of reduced intensities. Mount these scales on gray paper and print one initial.

Paint the designs that have been traced upon the cookery-book covers in a related analogous tone of about middle value. Boys cut a templet from white paper like the design prepared for the end of the magazine rack. Mount the design on gray paper. Print magazine-rack design and initials on the mounting paper. Girls make a complete duplicate design in lead pencil on white paper of the one used on the cookery-book cover. Print cookery-book design and initials on the gray mounting paper.

**FOLIO.**

One design for the magazine rack, mounted. One design for cookery-book cover, mounted. One neutral scale. One group of three harmonious analogous tones.

**MANUAL TRAINING.****VII B.**

Introductory work such as coat and hat rack, if desirable.

*Bridge study*—Arrange for stereopticon talk on bridges.

*Types of bridges.*

*Elements in bridge construction*—Compression members, tension members.

*Make wood parts*—Careful planing, use of gauge, scoring, miter cuts in boxes.

*Make metal parts*—Bolts and nuts. Thread cutting. Plates.

*Tests of truss or bridge.*

*Importance of bridges.*

*The truss in architecture*—Visit the school garrets.

*Concrete piers for the bridges*—Make wood mold and cast.

**VII A.**

Introductory piece, if desirable.

One piece involving designs, such as the magazine rack.

Working drawing will be made in the art department by each boy of the VII B grade.

All parts are made ready in full dimensions. The parts to be modified are then shaped according to the individual designs produced in the art department.

If time allows, one of the following projects may be selected: Group bridge. Water motor (individual). Concrete piece, as fern dish.

**GRADE VIII.****SEPTEMBER AND OCTOBER.**

**NOTE.**—References to handwork are made in the larger type.

**NATURE DRAWING.**

**Aims:** Expression of beauty, charm of growth, grace of line and harmony or brilliancy of coloring.

Make careful drawings from flower or fruit sprays, using lead pencil or water color. Select some plant for study and devote every effort toward mastering it and learning to express its characteristics with pencil or with color. Every sheet should show genuine study.

**VIII A.** Trace the designs on the metal for execution in the shops if so requested by the shop teachers.

**FOLIO.**

One sheet of pencil sketches of details from some nature spray. One accented drawing in pencil of a flower or fruit spray. One nature drawing in water color of a flower or fruit spray selected for beauty of coloring.

**NOVEMBER AND DECEMBER.**

**VIII B.** **Aims:** Rapid and accurate thinking in three dimensions. Skill in handling simple drawing instruments. Balance of parts or elements (in lettering).

**CONSTRUCTIVE DRAWING.**

Review or teach the terms, horizontal, vertical, oblique, circle, circumference, diameter, diagonal, arc, radius, perpendicular, triangle, right angle, rectangle, square, semicircle, hexagon, square prism, cube,



cylinder, cone, hexagonal and triangular prisms, square pyramid, pentagon, square, hexagonal and circular plinths, and frustums of the cone and square pyramid.

Explain the use of the drawing kit (drawing board, T square, and triangles). Demonstrate how a sheet of paper may be placed on the drawing board, fastened, and used. Explain the difference between a working drawing and a pictorial drawing. Make a careful working drawing from the composing stick, or some other appropriate object or piece of apparatus made and used by the pupils in the school work; or work out the set of geometry problems furnished grade VIII.

#### DESIGN.

Carefully letter the working drawing with name of the object and pupil's initials. Arrange and letter a festival card, using a greeting, motto, or appropriate quotation. This work should include the design of at least one initial or illuminated letter. Give special attention to the balance and unity of the whole arrangement.

#### FOLIO.

One working drawing or set of geometry problems. Two arrangements of lettering.

#### DESIGN.

VIII A. The design for both boys and girls is to take the form of an illustration for some piece of eighth-grade literature. The designs are to be worked out by the boys in etched process on zinc plates in the manual training shops. Prints will be made from these plates and sent to the studios. These designs are to be printed with color ink on tinted paper. The selection of the ink and paper is to be made in the studio before the designs are printed in the shops. Time and equipment will not allow of the etching, mounting, and printing of all of the designs. From the class work the most satisfactory designs will be selected, plates etched from these designs, and prints made. These prints will be returned to the studio and distributed so that each pupil may have one print of the piece of literature for which he attempted to make an illustration. These designs should be ready to go to the shop about Thanksgiving time. The prints are to be returned to the studio from the shops before the close of this half year.

Arrange and letter a festival card, using a motto, greeting, or appropriate quotation. This card should have at least one well-designed initial or illuminated letter. Give careful attention to the balance and arrangement of the whole card.

#### FOLIO.

One design for the illustration of eighth-grade literature. One print from plates etched in the shop. One arrangement of free-hand lettering for a festival card.

### JANUARY AND FEBRUARY.

Aims: Observation and appreciation of simple beauty in common objects. Power to truthfully record observations of form.

#### GENERAL DIRECTIONS.

One paper is sufficient for any one lesson. Keep to one paper till some one point is accomplished. Draw the same object more than once. Failures or poor drawings sometimes result because pupils can not see the objects that serve as models. Have several duplicate objects so placed that every pupil can at least see one object readily. Avoid the eraser as the worst enemy of good habits in drawing. Hold the pencil lightly and a few inches from the point. Make large drawings, well placed on the paper. Teach each lesson in successive steps and have one step well accomplished before another is given. Independence in drawing will come after good habits have been insisted upon and so formed.

#### STUDY OF SINGLE OBJECTS.

Give all the pupils practice in drawing horizontal ellipses, vertical and horizontal lines. By means of hemispherical objects, circles of cardboard, hoops, wire cylinders, or diagrams on the board, teach what the term foreshortening means. First lead the children to see foreshortening in circles, then to represent it, then to determine the amount of foreshortening and to make their drawings accordingly.

Study or review the drawing of single cylindrical and conical objects, illustrating the effects of foreshortening and changes in level of circles and concentric circles.

Make careful, well studied pencil drawings of single cylindrical, hemispherical or conical objects, such as a glass tumbler, earthen mug, water pail, wooden butter box, dry measure, earthen pitcher, agate or tin saucepan, earthen cooking crock, earthen bean pot, agate basin, tin dipper, or earthen bottle, simple vase, kum, teapot, Japanese bowl, coffee pot, cup and liquid measure.

Give careful attention to the grouping of the objects, placing and arrangement on the paper, apparent level of the objects and foreshortening of circles and concentric circles; also give careful attention to the placing and correct drawing of the handles, rings, and other accessories. Use all the helps possible, e. g., invisible edges, axes, and diagonals.

#### COMPOSITION.

When the pupils can successfully draw a single hemispherical, cylindrical, or conical object, let them try a simple group of two or three objects, such as a saucepan with beets; butter box with potatoes; dry measure filled with potatoes and one or two lying near; saucepan and large mug; tumbler and two lemons; bean pot and earthen mug; glass preserving jar and cup; tin dipper or agate basin and potatoes; Japanese vase and bowl; earthen mug and small bowl; glass preserve jar and bowl; or milk can with a cap.

Review or practice shading with broad parallel lines, to give an even tone. Try this shading on one of the drawings of a single object; accent the drawing.

Make a careful drawing from a single beautiful object, such as a Japanese bowl or vase. Cut this drawing out, trace it on a tinted paper that approximates in color one of the tones of the object, and color the drawing with crayons and lead pencil on the tinted paper to suggest the tones of the vase or bowl. (Grade VIII A pupils may consider the elements of convergence.)

**FOLIO.**

One accented pencil drawing of a single hemispherical, cylindrical, spherical, or conical object with a handle, ring, or other accessory properly placed and drawn. One accented pencil drawing of a group of two objects. One shaded pencil drawing of a single object, or one colored drawing of a single object or group of objects drawn on tinted paper and suggesting the color of the objects.

**MARCH, APRIL, MAY, AND JUNE.****DESIGN.**

*VIII B.* Boys will prepare designs for a square or rectangular metal tray, blotter corners, book ends, stationery holders, or paper knife. The design for the tray is to be for the edge of the rectangle. The other designs may be for etched surfaces. Girls will prepare designs for a sewing problem to be finished in solid and outline embroidery. Designs may be for an opera bag, belt, or pincushion.

Girls are to trace their designs upon the linen by means of carbon paper. Each girl is to mark her work with name, school, and room, and the work will be kept in complete sets by the drawing teacher until next September, when the work will be delivered to the sewing teacher, the designs embroidered, and the parts assembled in the VIII A sewing classes.

Boys are to finish their designs in pencil outlines, surfaces to be etched and carefully filled in with a gray pencil tone or cross-hatch lines. These designs should be on paper of the exact size of the tray, knife, corner, or holder. Boys are to mark their designs with name, school, and room number. The designs should be kept in complete sets by the drawing teacher until next September, when the work may be delivered to the shop teachers.

**COLOR STUDY.**

Review or teach color terms and harmonies. Select some one color harmony—neutral, complementary or analogous—for a special study. Trace the designs furnished you, and render them in two or three related harmonious tones of reduced intensity. On tracing paper make a rendering of the girls' designs showing where the light and dark values are to be placed.

**FOLIO.**

One design for the boys' work. One design for the girls' work. One design rendered in each color harmony studied.

**DESIGN.**

*VIII A.* Design for the boys and girls may take the form of illustrations and decorations for a simple booklet, folder, or card. The designs are to be worked out by the boys in etched process on zinc plates in the manual training shops. Prints will be made from these plates and sent to the studios, where the color may be applied if needed to enhance the beauty of the designs. It is impossible for each design to be worked out in the shop. The best designs will be etched and plates made from them and returned to the studios to supply each pupil with at least one piece of creditable work. Color may be added to the prints in the studio and the leaves may be bound into the booklet. Select some piece of English of lasting worth and appropriate literature for this grade. Using this as a subject, design an appropriate illustration (landscape composition) to accompany the text. The landscape compositions should be ready the second week in April.

Color study will be the same as VIII B March, April, May, and June.

Pupils in this section are privileged to construct and decorate a desk blotter if conditions are not quite favorable for the consideration of the design for the card, folder, or booklet.

**CONSTRUCTION.**

For the construction of the blotter pupils will need the following materials:

Three or four pieces of news board 12½ by 10 inches; 2 pieces of cover paper 2½ by 12 inches; 2 pieces of cover paper 2½ by 9 inches; 4 pieces cover paper 5 by 6 inches; 1 piece drawing paper 9 by 12 inches; 1 piece drawing paper 8½ by 11 inches; 1 piece blotting paper 9½ by 12 inches.

News board will be furnished 12½ by 10 inches. Cover paper 9 by 12 inches. Save all scraps of colored paper for trial of color.

Paste the pieces of news board together and press them. Bind the 12½-inch edges with 2½-inch strips of cover paper to run over on to the news board equally on each side. Bind the two 10-inch edges of the news board with 2½-inch strips of cover paper. Rule a line ½ inch or ⅓ inch from one long edge of the 5 by 6 inch cover papers, fold on this line and paste it flat. Fold and paste these 5 by 6 inch papers across the corners of the news board, making a triangular covering on the face side, two edges of which are to be 3 inches long. Fold and paste the ends firmly to the back of the news board. Paste the 9 by 12 inch drawing paper to finish the back of the blotter, and the 8½ by 11 inch drawing paper to finish the front. Slip the piece of blotting paper into position, one corner under each of the corner straps.

Trace the design upon the blotter corners and finish as the one on practice paper was painted.

**FOLIO.**

One design for the blotter corner or one design for the card, folder, or booklet. One complete print from the designs for the card, folder, or booklet. One design in each color harmony studied.

## MANUAL TRAINING.

## VIII B.

**THE TELEGRAPH.**

Demonstration of its parts.—Importance of the telegraph.—History of its invention.—Making of the base; emphasis on the precision necessary in making instruments. Use drawings and sketches.—Principle of the electromagnet.—Magnetism as related to soft iron, steel, and other common metals.—Making of metal parts for key. Laying out on metal to be carefully executed. Systematic use of drawings and sketches necessary.—The code, Morse or Continental, preferably the Morse. Each boy should have the code on a card. From this stage of the work on, five minutes each lesson should be given to listening and sending.—Making metal parts for the sounder. Assembling, finishing.

NOTE.—Make full use of metal equipment furnished by the vocational school. Protect the benches by using the bench plates and vise anvils.

## VIII A.

**PRINTING.**

*Distributing.*—All the boys distribute type at the same time. Two boys are assigned to each case, and they are to be responsible for work done. Show use of galley and stick to avoid "pi." If all work has been distributed, give some "pi" taken from his own case to each boy.

*Setting type.*—Boy's name and address for a card. Lock as many as possible in one form. Print something for school work, as headings or titles for arithmetic, grammar, spelling, etc., or envelopes. Set up a calendar and print for IX B design work.

*Etching.*—Initial letter. Trace initials from type, take a proof, catalog of old Post Roman, and have each boy etch his own initial and mount it for printing. By this time the designs should be ready for the final proof of printing a selection of the regular English work, with an etched illustration. Each boy is to etch. If his drawing is not worth while, let him take a girl's design or trace one. Do not etch a poor design.

If an initial letter is to be used, set up the type and confer with the art teacher in choosing the proper size and style for the initial.

Keep in close touch with the drawing teacher in your school and show her the process of etching, so as to inform her about the kind of designs that are workable. Do not have the designs rushed.

VIII A.—September class. Prepare the metal for the object designed in the art classes last spring. Etch or finish the design as soon as traced upon the metal and take up the printing.

NOTE.—The etching of the illustrations should be carried out without delay when the designs are prepared. In the fall term the designs are due at Thanksgiving and in the spring term the second week in April. A full set of prints should be supplied to the studio in each case that designs are supplied. See instructions given to the studios referring to printing in the drawing outline.

## GRADE IX.

## SEPTEMBER AND OCTOBER.

NOTE.—References to handwork are made in the larger type.

**NATURE DRAWING.**

Aims: Expression of beauty, charm of growth, grace of line, accuracy of expression, brilliancy or harmony of color.

Make careful drawings from flower or fruit sprays, using lead pencil or water color. Select some one plant for study and devote every effort toward mastering it and learning to express its characteristics with pencil or with water color. Every sheet should show genuine study.

**FOLIO.**

One sheet of pencil sketches of details from some nature spray. One accented or accented and shaded pencil drawing of a fruit or flower spray. Or one nature drawing in water color of a fruit or flower spray selected for beauty of coloring. These drawings to be carefully and appropriately mounted.

## NOVEMBER AND DECEMBER.

**DESIGN.**

IX B. One lesson in picture framing should be given before the Christmas recess. In this lesson the boys are to establish the proper width of the frame for the picture they are to frame during their A section in the manual training shop. The drawing teacher should supervise the selection of the picture.

*Option 1.* Pupils of this grade may make a folding writing tablet and decorate the same. It will be necessary to have the decorative designs for these tablets made first in order to allow time for the wood blocks to be made and the covers to be printed from them. Arrange the decorative designs within  $4\frac{1}{2}$  by  $8\frac{1}{2}$  inches rectangles. The design is to be made a competitive problem and is to be finished as a pencil tracing to be ready for inspection and selection the last of November. Wood blocks may be cut in the shops or studios.

Each pupil will need the following materials: News board, two pieces  $10\frac{1}{2}$  by  $6\frac{1}{2}$  inches. Cover paper (A), one piece  $6\frac{1}{2}$  by  $8\frac{1}{2}$  inches; four pieces (B)  $1\frac{1}{2}$  by  $3\frac{1}{2}$  inches; one piece (C)  $7$  by  $11\frac{1}{2}$  inches; one piece  $4$  by  $7$

inches; one piece (D) 6 by 8 inches; one piece (E)  $6\frac{1}{2}$  by 8 inches; one piece (F) 6 by 10 inches. Binding cloth, one piece  $2\frac{1}{2}$  by  $11\frac{1}{2}$  inches; one piece  $2\frac{1}{2}$  by  $9\frac{1}{2}$  inches. Blotting paper, one piece 6 by  $9\frac{1}{2}$  inches. Fasten the two news boards together by means of the longest piece of binding cloth: Leave a one-half inch space between the two long edges of the boards and let the cloth paste on to the boards 1 inch. Fold and paste the three-fourths inch projecting ends inside. Paste the shorter piece of cloth to finish the inside of the binding. Paste paper 4 by 7 inches to cover the upper part of the back cover, covering a space  $6\frac{1}{2}$  by  $3\frac{1}{2}$  inches and coming within one-half inch of the binding. This paper will project three-fourths of an inch at the top and end of the cover. Clip the free corner and fold and paste the three-fourths inch projecting edges over on to the outside of the cover. On the two long edges of (D) and one short edge draw lines three-fourths of an inch from the edges of the sheet. Fold and paste one of these long edges flat. Fold and paste the others to make a pocket for envelopes. Paste this pocket  $2\frac{1}{2}$  inches from the upper edge of the cover. Fold and paste the free end to the outside of the cover. Fold this over cardboard to prevent the pocket from being too thin to receive the envelopes. Fold and paste (E) in the same way as (D) was done, allowing the paper to project three-fourths of an inch at the lower end and side of the cardboard. Fold and paste these edges to the outside of the cardboard. Paste paper (E) one-half inch from the binding to finish the outside of the back cover.

Turn in and paste a one-fourth inch strip on one long edge of each piece (B). Paste these across the corners of (A) to make triangular pockets at each corner  $1\frac{1}{2}$  by  $2\frac{1}{2}$  inches. Fold the ends and paste them to the back of (A).

The design will be printed on paper (C). Paste this one-half inch from the binding to cover the outside of the front cover. Fold inside and paste the three-fourths inch projecting edges. Paste piece (A) on which the triangular corners have been pasted to the inside of the front cover. Slip the blotting paper into position.

*Option 1.* Pupils of this grade may design a calendar to be printed by the boys in the manual training shop. One of these prints will be sent to the studio to show the size and style of calendar determined upon. This print should be received previous to November 1. Plan the size and placing for the decoration: The design for the calendar is to be made a competitive problem. Designs are to be finished as pencil tracings and are to be ready for inspection and selection the first week in December. Zinc etchings will be made from the two most successful designs. Mount the calendars ready for the prints, which should be received from the shops in time to mount them and finish the calendars before the end of the first half year.

*Option 3.* Practice the arrangement and grouping of letters to form words. Arrange and letter a festival card, including a greeting, motto, or appropriate quotation. This card should have one or two well-designed and consistent capital, initial, or illuminated letters. Give careful attention to the balance, margins, and unity of the card. This card may take the form of a flat card, folder, or triptych, and should be inclosed in an appropriate envelope.

**IX A.** Establish the color for the picture frames when they are returned from the shops.

*Option 1.* Pupils of this grade may make a folding writing tablet and decorate the same. The designs should be individual and will be painted on the tablet cover, not printed as in IX B. The corners of the inside blotter may also be decorated. Pupils may have the remainder of this half year for the completion of this problem.

*Option 2.* Practice the arrangement and grouping of letters to form words. Arrange and letter a festival card, including a greeting, motto, or appropriate quotation. This card should have one or two well-designed and consistent capital, initial, or illuminated letters. Give careful attention to the balance, margins, and unity of the card. This card may take the form of a flat card, folder, or triptych, and should be inclosed in an appropriate envelope. The remainder of the year may be devoted to the completing of this card.

#### FOLIO.

One completed writing tablet, or one completed calendar, or one completed card. One working drawing for the picture frame.

#### JANUARY AND FEBRUARY.

**Aims:** Observation and appreciation of simple beauty in common objects. Power to record observations of form truthfully.

Give all the pupils practice in drawing horizontal ellipses, vertical and horizontal lines, and quick sketching from objects. By means of hemispherical objects, circles of cardboard, hoops, wire cylinders, or diagrams on the board, review the term foreshortening. By means of pictures, sketches, and objects lead the pupils to see convergence in retreating edges, to represent it, and to understand enough about it to make consistent sketches. Correct or incorrect illustrations that the pupils may collect will make interesting study. Make several simple, rapid sketches to show convergence in retreating parallel lines, using paste-board boxes as models, singly or in groups.

Make careful, well-studied pencil drawings of cylindrical, hemispherical, conical, spherical, or rectilinear objects. Select one object, study it until a successful drawing is accomplished. The following list will make good studies: Japanese bowls, vases, bottles, cooking and preserving utensils, cereal boxes, berry boxes with vegetables, dry measures with vegetables, bowls and sprouting onions, cereal box and measuring cup, agate or tin basins, pails, liquid measures, milk can and a bowl, the front and one end of the room, or a partly open door.

Practice pencil shading to gain power in laying an even gray tone of parallel lines. Try representing shaded surfaces in a simple manner on one of the object drawings.

**COMPOSITION.**

When this is successfully accomplished, try either of the following problems:

- (a) Make a careful pencil drawing of an object or group of objects. Accent and represent the shade surfaces.
- (b) Make a careful pencil drawing of an object or group of objects. Cut out the drawings, trace and transfer to the colored paper that approximates in tone some dominant tone in the objects, and color with crayons and lead pencil to suggest the tones of the objects; or make an accented pencil drawing of the corner of the room, or a pencil drawing illustrating the effect of convergence in small objects. This drawing may be an accented and shaded pencil drawing, or a drawing done on tinted paper and suggesting the color of the objects.

**FOLIO.**

One accented pencil drawing of a single object or group of objects. One accented and shaded pencil drawing of a single object or group of objects. Or one colored drawing on tinted paper of a single object or group of object.

MARCH, APRIL, MAY, AND JUNE.

**DESIGN.**

*IX B.* One lesson in picture framing should be given in the latter part of April or the first of May. In this lesson the boys should establish the proper width for the frame of the picture they are to frame during their A section in the manual training shop. The drawing teacher should supervise the selection of the picture.

*Option 1.* Pupils of this grade may make a folding writing tablet and decorate the same. It will be necessary to have the decorative designs for these tablets made first in order to allow time for the wood blocks to be made and the covers to be printed from them. Arrange the decorative designs within 4½ by 8½ inch rectangles. The design is to be made a competitive problem, and is to be finished as a pencil tracing and to be ready for inspection and selection in the second week of April. The designs for the writing tablet may be finished as in November and December IX A or IX B. Wood blocks may be cut in the shops or studios.

*Option 2.* Pupils of this grade may design a calendar to be printed by the boys in the manual training shop early next fall. One of these prints will be sent to the studio to show the size and style of the calendar determined upon. Plan the size and placing for the decoration. The design for the calendar is to be made a competitive problem. Designs are to be finished as pencil tracings and are to be ready for inspection and selection in April. Zinc etchings will be made from the two most successful designs. The mounting of the prints and calendars may be done during this term or in the fall as IX A work.

**COLOR STUDY.**

Review or teach color terms. Make a special review of monochromatic, analogous, and complementary colors and harmonies.

Make applications of various color harmonies to simple interiors—side wall, frieze, woodwork, and doorway with portière, or a fireplace and settle.

**DESIGN.**

*IX A. Option 1.* Prepare designs for the graduation program. This should include the proper placing of the title, name of the school, and date, together with some border, corner ornaments, center supporting decoration, or appropriate landscape composition. The selected design will be etched and printed in the manual training shop.

*Option 2.* Pupils of this grade may design a book plate. The more satisfactory designs will be etched in the manual training shops as zinc process and prints made and returned to the studios.

**COLOR STUDY.**

Select and establish the color for the picture frames when returned from the shops.

Review or teach color terms. Make a special review of monochromatic, analogous, and complementary colors and harmonies.

Make application of color harmonies to simple interiors—side wall, frieze, woodwork, and doorway with portière, or a fireplace and settle.

**FOLIO.**

One completed writing tablet, or one completed calendar, or one completed graduation program, or one completed book plate. One application of each color harmony studied.

**MANUAL TRAINING.****IX B.**

One required piece of work such as the stepladder or tabouret. The balance of the time may be given to an elective piece. In cases where the classes take up the calendar in their art work one or two cuts will be etched as selected from competitive designs.

## IX A.

One required piece, the framing of a picture. A working drawing is to be worked out in the art department in the latter part of the IX B term. As soon as the frames are constructed, the picture is to be placed in the frame with the glass and sent to the studio to have the color determined. Elective work will follow.

NOTE.—See the drawing outline for references to correlated problems.

## PICTURE STUDY.

The aim of this study is to acquaint pupils with some of the great paintings, to develop in the children a more critical observation of works of art, and to establish and nourish a strong love for the beautiful as found in the arts of man and of nature.

The list of pictures suitable for study in the grades is given in four groups.

Teachers may select the one or two pictures they wish to consider with the pupils and arrange to take up this study at some advantageous time during the year. Whenever expedient correlate the picture study with oral or written language, history, geography, or literature.

## GRADES I, II, AND III.

Aim to draw out from the pupils the story that is in the picture. Tell them the complete story, the artist's name, and a few simple facts about his life or work.

Village Choir—Lins.  
Feeding Her Birds—Millet.  
Children of the Shell—Murillo.  
A Helping Hand—Renauf.  
Out for a Sail—Walden.  
Can't You Talk?—Holmes.  
The Pet Bird—Meyer von Bremen.  
Two Others—Gardner.

## GRADES IV AND V.

Draw out from the pupils the full story that is in the picture. Explain in a simple way the composition of the picture, where the center of interest is placed, and why. Give them a few simple facts about the history of the picture, the artist's life, works, and characteristics of same.

Holy Night—Correggio.  
Christ and the Doctors—Hofmann.  
By the Riverside—Lerolle.  
Holy Family—Lerolle.  
The Shepherdess—Millet.  
The Gleaners—Millet.  
The Angelus—Millet.

## GRADES VI AND VII.

Lead the pupils to decide where the most interesting part of the picture is placed and what helps to make this center of interest where it is. Explain in a simple way how and why pictures are composed with leading lines. Give the artist's name, period of his life, and a few facts about his work and general characteristics.

A Reading from Homer—Alma-Tadema.  
Atalanta's Race—Poynter.  
Automedon with the Horses of Achilles—Regnault.  
The Horse Fair—Bonheur.  
The Fighting Téméraire—Turner.

## GRADES VIII AND IX.

Lead the pupils to appreciate the general composition of the picture. Lead the pupils to appreciate the masterly drawing or arrangement it may contain, its significant message, why or how it was created. Give the pupils a few salient facts as to the life, works, and character of the artist, the place where the picture is now located, and something of its general history.

End of Day—Adam.  
Spring—Corot.  
The Lake—Corot.  
Delphic Sibyl—Michael Angelo.  
Madonna of the Chair—Raphael.  
Sistine Madonna—Raphael.  
Aurora—Reni.  
The Golden Stair—Burne-Jones.  
The Assumption—Titian.

## PITTSBURGH, PA.

"Course of Study in Art and Elementary Industrial Training." General notes with first-grade outline.

## GENERAL NOTES.

"Here may we create beauty with our own hands and learn the value of simplicity and restraint, as the Greeks learned it long ago."

In our public art education, we should have consideration for the capacities and needs of the many, rather than for the talents of the few, with faith in the potentialities of all. We should assume that all can draw and build as others assume that all can write and cipher; and, while we can not expect to make many great artists, should we not be better teachers, if we looked at each child as a possible Milton or Michael Angelo?

We must not forget that our aim should be the boy and not the box. It should be not the drawing that may be hung upon the wall, but the faculties that may be developed in the child.

*Drawing* is primarily a vehicle for thought expression, and is peculiarly fitted to effect a harmonious working of the child's discordant senses. True eyes and skillful hands must count for much toward industrial efficiency as well as aesthetic appreciation.

Drawing is the basic and logical plan from which all well-ordered creations are developed.

All children draw naturally and joyfully in their early years, but the prophecy of their early years is not fulfilled in the later ones. Perhaps it is because we have criticised too severely, and implanted fear where there should be spontaneity. Let us not judge the work of the little ones by adult standards, but remember that it is the endeavor that counts and accuracy will follow in due time.

*Illustrative* drawing should be encouraged in all the primary grades. It should be the natural graphic expression of the children's interests. Let them tell their stories in their own way, the teacher suggesting such corrections as will enable the story to be told in a better way.

There is a difference between having to say something and having something to say. The abstract problem kills the interest which the illustrative work fosters.

Reading, language, geography, and history offer rich opportunities for graphic expression—visualization becomes a habit, knowledge is clarified, and the child thinks in terms of pictures rather than words.

Pictorial drawing should be more vital, more genuinely useful to the pupils and more necessarily a part of the school work than we have commonly conceived it.

*Nature drawing* develops the power of accurate observation, furnishes rich material for decorative purposes, and acquaints one with material for later scientific study.

*Models.*—Care and discrimination should be exercised in the choice of models. The simple vase with its beautiful lines and mat glaze is preferable to the glossy over-elaborate one. Seasonable nature specimens should be selected with a regard for their simplicity, character, and general fitness.

All objects should be drawn free-hand, without the aid of rules.

Reference material should not be copied but used in stimulating children to like expression.

The principles of perspective should not be taught, as such, in the earlier years. Little by little the child should be led to observe conditions which will later be confirmed.

*Design* is synonymous with thought, and means plan in a logical and orderly manner, to the end that the useful thing may become beautiful as well. As forms are studied for decorative purposes, the memory is strengthened and the imagination quickened. The work in design should be closely related to our manual construction.

*Color study* is of vital importance. It should not be conducted in a hit and miss way, but should aim to develop and refine the color sense. This will lead to better discrimination between good and bad color combinations on the person and in the home, and an enhanced joy of living, through a greater appreciation of nature and art.

In describing color, the terms hue, value, and intensity (or chroma) are used.

*Hue* is the quality by which we distinguish one color from another.

*Value* denotes the amount of light in a color.

*Chroma* (intensity) denotes the strength of a color.

*Clay Modeling* supplies the most valuable and fundamental hand training, developing as it does the sense of touch and a real understanding of form in three dimensions. This experience means the concrete thought necessary in shaping wood, stone, or metal.

*Cardboard Construction* should teach the basic principles of construction, and prepare the way for a knowledge of sheet-metal work, woodwork, and steel construction. The aim should be a serious one.

*Weaving, Basketry, etc.*, are valuable so far as they work for greater skill and teach good design. Pupils should at least know the elementary processes of the textile industry.

*Correlation.*—Drawing and elementary industrial training should be intimately related to the regular school work.

Nearly all school studies are made more interesting by this correlation, and the impressions more lasting.

In brief, the drawing and manual training should be made of practical use throughout the child's school life, that it may assert its educational value as a common means of expression. It should be utilized as a help in other studies; observation in the nature and object drawing should lead to a keener mental attitude in language; the study of design should mean neatness and order in the written work; the making and construction work may be used in arithmetic; and again, the arithmetic should be used in constructive design, the nature study in nature drawing, and geography in illustrative drawing. In other words, the drawing should be made of vital importance to the child, for his mental, physical, and spiritual uplift.

"A room without pictures is like a house without windows."—RUSKIN.

*Art Study.*—It is by the contemplation of beautiful things that we grow more like them, and it is but a step from the beautiful to the good. All truly great art is ennobling for this reason.

The art study course is planned to acquaint the children with the world's best art, and is arranged to conform with their different stages of development and appreciation.

Special attention has been given to the selection of pictures which are reproduced in half-penny prints, that they may be possessed by each child and attached to explanatory notes upon the subject.

The school calendar, with its appropriate monthly decorations as well as other seasonable illustrations, brightens the schoolroom and cheers all who are within.

Consider methods for economic distribution and collection of materials.

Develop habits of neatness in the care of color boxes, brushes, and other materials.

The supervisors desire to see all work and make selections for exhibition purposes.

Teachers should acquaint themselves with the work of the previous grade as well as that of the one following.

*See thou bring not to field or stone  
The fancies found in books;  
Leave authors' eyes and fetch your own,  
To brave the landscape's looks.*

EMERSON.

"Fortunate is he who at an early age knows what Art is."—GOTTHE.



## FIRST YEAR.

## TIME.

Art and industrial training combined 200 to 300 minutes weekly. Lessons daily, closely articulated with primary activities and interests.

## SEPTEMBER.

*Illustrative Drawing.*—Some story of the summer's vacation.

*Nature Drawing.*—Draw grasses and simple flowers with pencil, brush or colored crayons.

*Color Study.*—Begin to teach color names. Look for these colors in rainbow, fruits, and flowers, and represent them with crayons or water colors.

*Blackboard Drawing.*—Circles and straight lines in various directions. Free-arm movement.

*Paper Cutting.*—Cut and mount the shapes of common fruits and vegetables.

*Correlative Work.*—Activities related to the language, geography, and history work.

*Picture Study.*—First steps, Millet.

## OCTOBER.

*Illustrative Drawing.*—Stories in "picture language" suggested by the language lessons.

*Nature Drawing.*—Common seeds and seed dissemination, recognition of common trees, leaf forms, coloring, and falling of leaves, etc., in ink silhouette and color.

*Color Study.*—Show six standard colors in prismatic spectrum.

Tom Tinkum had six toy balloons,  
 And all of these were white;  
 He took his paints and took his brush  
 And worked with all his might.  
 "The first one of the row," Tom said,  
 "I'll paint my brightest red.  
 And then I'll mix my red with yellow  
 For orange," said the little fellow,  
 "And now I'll paint a pretty one  
 All round and yellow like the sun.  
 By mixing yellow with blue  
 I'll get a lovely bright green hue.  
 Of blue my next balloon shall be,  
 The color of the sky, you see.  
 And now my red and blue I'll mix  
 To make a violet—number six."

or

The green leaf is a pretty fellow  
 And jolly is the sun so yellow.  
 The orange is a golden ball  
 And red the apple in the fall  
 The violet has a purple hue  
 And, over all, the sky is blue.

*Blackboard Drawing.*—Continue September exercises and encourage memory drawing of some object seen outside.

*Industrial Training.*—An expression on paper, in cardboard, clay, etc., associated with the study of Indian Life and Hiawatha's Childhood. Fold a drinking cup, use 8-inch square.

*Picture Study.*—Baby Stuart, Van Dyck.

## NOVEMBER.

*Illustrative Drawing.*—Suggested by the Thanksgiving harvest season. Stories in the month's language work. Use colored crayons.

*Industrial Training.*—Articles associated with the early life of the Pilgrims and the first Thanksgiving.

*Clay Modeling.*—Simple fruit and vegetable forms.

*Blackboard Drawing.*—Loops erect and in combination. Secure facility of expression.

*Picture Study.*—Hiawatha, Norris. Collect pictures relating to Thanksgiving Day and its history.

## DECEMBER.

*Illustrative Drawing.*—Winter pastimes, stories in language and reading.

*Design and Manual Training.*—Make Christmas greeting cards, bookmarks, or candy holders, using cover papers, colored crayons, or water colors. Continue the month's work along these lines, picture stories and hand work suggested by the holiday season. Other Christmas gifts, calendars, Christmas tree decorations, etc. Model a snow man, draw the toys desired, reproduce shop windows, construct sled, etc.

*Picture Study.*—Madonna of Chair, Raphael. Collect pictures relating to the Christmas season, and the topics in the language work of the grade.

## JANUARY.

*Illustrative Drawing.*—Draw from memory holiday gifts and incidents.

*Design.*—Repetition of simple units for border. Rhythmic relationship, simple lines. In connection with this, teach pupils to understand such terms as straight, curved, horizontal, vertical, and oblique. Talk about the use of border for a booklet, table mat, etc.

*Blackboard Practice.*—Circles and ellipses. A little enjoyment created by converting these shapes into faces, animals, etc.

*Industrial Training.*—Make a "Wordbook." Make an envelope to contain some school work. Apply simple lettering and design.

*Picture Study.*—Can't You Talk? Holmes.

## FEBRUARY.

*Illustrative Drawing.*—Illustrations suggested by Washington and Lincoln anniversaries.

*Design and Paper Cutting.*—Apply to simple and appropriate valentines. Colored papers, crayons, or water colors. Refer to School Arts Book, February, 1907, pages 509-510.

*Industrial Training.*—Suggested by the history work of the grade related to the life of Washington and colonial life.

*Picture Study.*—Portrait of Washington, Stuart.

## MARCH.

*Illustrative Drawing.*—Stories and games appropriate to the season. Use crayons or pencils.

*Industrial Training.*—Objects suggested by the month's geography and history study, the "Children of Holland."

*Color Study and Paper Cutting.*—Easter eggs and Easter cards.

*Manual Training.*—Model eggs, chicks, and rabbits.

*Picture Study.*—Angels Heads, Reynolds.

## APRIL.

- Illustrative Drawing.*—Story of the coming of spring. Use colored crayons.  
*Nature Drawing.*—Drawings from pussy willow, or other simple spring growths.  
*Industrial Training.*—Spring booklet, to contain birds, flowers, and other drawings. Napkin rings, circular picture frames, etc., with raffia, simple winding. Model squirrel, duck and swan, birds and nest.  
*Picture Study.*—Age of Innocence, Reynolds.

## MAY.

- Nature Drawing.*—Drawings in color of simple flowers.  
*Illustrate.*—Making garden and other occupations.  
*Industrial Training.*—Model simple flowers on a tile, simple furniture from square fold, garden tools, or objects suggested by the month's geography and history work.  
*Picture Study.*—Two Families, Gardiner.

## JUNE.

- Review and complete unfinished work.  
*Picture Study.*—Children of the Shell, Murillo.

ST. LOUIS, MO.<sup>1</sup>

"Course of Study in Drawing."—General Suggestions with First-Year Outline.

## GENERAL SUGGESTIONS FOR ALL GRADES.

## I. ARRANGEMENT OF PLAN.

The plan for the work in drawing is arranged by months. Neither more nor less time than allotted should be given.

## II. WORK.

1. *Marking.*—The pupil should make his drawing first. When the drawing is completed he should write on the same side of the paper, at the bottom of the sheet, or on the back, the name of the school, his grade, his name and the date, omitting the quarter, except in first and second grades. Never write at the top. The teachers will kindly see that every paper is marked in this way before sending to the office, and do the marking for the children who are too small to do so much writing.

Marking of booklets should be on the first page of the inside paper; of book-cover designs on single sheets; frames and calendars, on the back; of boxes and baskets, on the bottom, before pasting.

Where the classes in a room are in different grades, the grade marked on the papers must be that of the work done in drawing by the two classes, not the grade of each class.

2. *Selection.*—The teacher will retain each set of papers as a whole until seen by a supervisor, arranging on top the best five papers of each exercise, these to be sent to the office when so directed.

3. *Arrangement.*—The teacher will arrange the exercises according to the weeks in which they were given, and then according to the months, in order that the supervisor may follow the sequence of the work. Please do not pin, tie, nor cross papers sent to the office.

<sup>1</sup> (Mrs.) M. E. Riley, supervisor.

## III. USE AND CARE OF MATERIALS.

1. *Pencils*.—Pencils for drawing should never be used for other work. They should be kept well sharpened. No good work can be done with unsharpened pencils, short, stubby pencils, or pencils that the pupils have put in their mouths, as this hardens the lead.

2. *Color boxes*.—Great care should be taken that water-color boxes are never put away soiled. Much waste will be avoided if the cakes of color are cleaned with clear water and brush at the close of the lesson.

3. *Brushes*.—The brushes must always be cleaned thoroughly, and when collected should have a good point. This point can only be kept by inverting the brushes point up in a glass or other vessel, and allowing them to dry in this position. Bags and boxes have proved unsatisfactory places for brushes.

Never leave brushes standing in the glass of water. It destroys the brush.

4. *Colored crayon*.—Use colored crayon for all work in illustrative drawing.

It may be used in the development of the design in all grades, the finished work, however, being done in water color, except in the first grade.

5. *Paper*.—(a) The colored cover paper is to be used for design and construction.

(b) The new tinted paper is to be used for plant and landscape studies in water color, for design, and for illustrative drawing. When present supply of white paper is exhausted use tinted paper for all studies.

6. *Preservation of supplies*.—Each teacher must keep carefully preserved in her own room the reproductions of studies of various subjects, supplementary notes, and mimeograph outlines.

Alphabet cards, pictures for picture study, India ink, etc., must be carefully preserved and kept in some one place, accessible to all teachers, and returned to the same place after using.

7. *Collections of still life*.—The collections of still life furnished each school should be used, not objects brought from home unless specially requested.

8. The work of each month, whether kept at school or sent to the office, should be wrapped in paper or put in a covered box, that it may be clean.

All constructive work should be sent to the office in boxes that it may not be crushed.

9. Keep strawboard backs of blocks for constructive work.

## IV. DIVISION OF TIME.

1. More than three periods should never be given at one time, nor more than one lesson in a day.

## V. GRADING.

1. At the beginning of a term where the first class in a room is in one grade, and the second class is in the fourth quarter of the next lower grade, take the drawing of the higher grade for both classes.

2. Where the second class is in the first, second, or third quarter of the next lower grade, take the lower grade drawing for both classes.

3. At any time during the year, when the second class enters a higher grade in other subjects, begin the drawing of the higher grade.

## VI. CHANGE OF CLASSES.

When pupils have been promoted, the teacher receiving them should consult their former teacher about the lessons they have had, in order that the same may not be repeated. For example: Pose, position of objects, etc.

Take up the work of the next higher grade when the second class reaches the grade of the first class.

## VII. MATERIALS AND THEIR ARRANGEMENT FOR LESSONS.

1. Single leaves, flowers, or twigs should never be used, and care should be taken that plant studies are not flat, but in easy, natural positions.
2. All materials and objects for study should be selected and placed in the room before the beginning of the session, "plant studies" having been arranged in glasses of wet sand, ready to be placed on boards.
3. Each study should have but one kind of plant. This does not mean that the whole room must work from the same kind of plant, but that no study should contain a mixture. Begin near the top of the paper and draw to the bottom.
4. All studies below the eye should be placed upon wide boards across the aisles so that every child may have a good view. Studies should be placed in the front of the room for pupils occupying the front seats.
5. Pupils should not draw the studies arranged on the board resting on their own desks.
6. Number of studies of plants or objects to be used when placed below the eyes:
  - (a) Where there are single seats in a room, one study must be placed in the middle and one study in the front of every alternate aisle. Where there is an odd number of rows of single seats in a room, two studies must be placed in one outside aisle.
  - (b) Where there are double seats in a room, one study must be placed in the middle of every aisle and one study in the front of every aisle.
7. When placed above the eye, use one large object or group of large objects, in order that each child may have a different point of view. Place the study in the middle of the front of the room on a box.
8. (a) Shadow boxes are to be used in all grades, that the backgrounds of the studies may be simple. As some of the best shadow boxes are made of pasteboard boxes, it would be better for each teacher to have her own set (at least six for room of six rows of single seats, eight for the rooms having double seats. The full number is needed for plants, and all studies of objects below the eyes). The shadow boxes should be lined with white.
  - (b) For a study above the eye, place the object or group on a large box and draw a small part of the middle vertical edge of the box and only enough of the top edge or edges visible to extend a very short space on either side of the object drawing.
  - (c) Do not draw front edge of the board on which the object below the eye rests.

## VIII. REPRODUCTIONS.

1. All copies of pencil reproductions should be drawn the size of the originals.
2. *Plant.*—Before doing pencil massing from plant study in grades I and II, devote two periods to copying carefully for method the reproductions sent to the schools.
3. *Landscapes.*—Reproductions of landscape studies in pencil are to be copied by all pupils in third grade only, before they do original work.
4. All teachers must have sufficient number of tree studies to supply each pupil in their rooms with a copy.

The illustrations of the different trees should be equally distributed.

Pupils in grades I and II, inclusive, copy the tree studies for growth, technique, and comparison of their characteristics.

In all grades study form, growth, etc.

In all grades use the tree studies in connection with illustrative drawing when trees may be used in the subjects to be illustrated.

## IX. CRITICISMS.

In all drawing lessons, teachers should criticize the drawings of as many pupils as possible. In representation they should be careful to look at the model from the child's point of view.

## X. WATER COLOR.

Water color is to be used for plant study, landscape, design, and such animals as have brilliant, rich color.

At the beginning of a water-color lesson, have each pupil moisten the entire top of each cake of color to avoid its wearing in holes.

As a rule, no outline should be drawn with a pencil. Any exception to this is stated in the grade to which it applies, when the outline drawn with a pencil should be extremely light.

All work in first and second grades is to be done on dry paper.

The other grades should make designs and ink studies on dry paper, but all other work on wet paper. The wet paper must not be used while the surface shines.

Paper should be wet on both sides.

The cloths used for water color are better when at least twice the size of the paper.

The teachers will find it very convenient to have a supply of cloths for water color always on hand, as fine specimens will often be brought in unexpectedly and it is well to be prepared for a lesson. In that case, date the lesson on the day it was given.

Except in design, where large washers may be required, the color should be put on the paper directly from the cakes.

For design mix the colors thoroughly in the pans, and enough to complete the design, thus insuring a uniform tone.

## XI. PENCIL MASSING.

1. The same direction of stroke should be used throughout on one member, as variety of directions on the same leaf or flower, etc., gives a confused appearance.

2. Treat all leaves as masses of tones, disregarding veins.

3. Stems should have line of growth carefully followed. Try to show varying thickness. Blade-like leaves should also be expressed with strokes following growth.

4. In first and second grades, the emphasis should be placed upon studying growth and getting a mass of tone, avoiding woolly, fuzzy treatment. Light and shade will come in higher grades.

5. Thoughtful study of reproductions of plant studies that are in each room will explain the difference between outlining a mass, and using accents where needed.

## XII. PLANT STUDIES.

Plant studies should be worked out in the medium best suited to them.

Single sprays should never be used unless they are broadly branching, and flower studies should always be accompanied by leaves.

Plant studies need high shadow boxes. In grades in which light and shade is studied, the shadow boxes should be placed so as to concentrate the light and make a simple background.

The studies are to be made in pencil, ink or color. When ink or color is used, there should be no pencil outline. For "pencil massing" plants with small flowers and grass-like leaves are among the excellent subjects.

White or delicately colored studies are not good for water color in the schools. Plants full of brilliant color should be used. Weeds, grasses, etc., are better for pencil or ink.

The following list of easily obtained plants is suggested, although there are many others often used:

*Full.*—Red clover, seed pods on the branch, althea, single dahlias, persimmons, and other fruits on the branch, bittersweet, zinnia, petunia, marigold, canna, rose-hips, verbena, salvia, morning glory, clematis, honeysuckle, wild sunflowers, Black-eyed Susan, Virginia creeper when on the main stalk with leaves, marshmallow, trumpet vine, snapdragon, lantana, smartweed, vervain, jimson, ironweed, etc.

*Spring.*—Red clover, wild sweet william, larkspur, honeysuckle, narcissus, crocus, jonquil, daffodil, cowslip, verbena, iris, sedges, yellow primroses, spiderwort, japonica, fruit blossoms, flowering shrubs, columbine, etc.

Do not use cosmos, violets, pansies, golden rod, or lilacs for color studies. When schools are in localities where plants are difficult to obtain, the teachers should plan together.

#### XIII. OBJECT STUDY.

- (a) All objects should be drawn in outline in grades I, II, III, IV.
  - (b) Measurement for proportion should begin in fourth grade and be used always in all object work in fourth to eighth grade, inclusive.
- All measurement and proportion lines should be sketched very lightly, and not erased, unless the study is to be composed or carried out in light and shade.

#### XIV. STUDY OF THE HUMAN FIGURE.

1. *Points to be avoided.*—(a) Care should be taken not to repeat the same pose from room to room; or the same pose for more than one lesson in the same room.
- (b) The pose having a child or children under an umbrella should not be given.
- (c) Faces are not to be drawn; indicate outline of head and mass of hair.
- (d) Poses of children "in action" are more easily drawn than erect poses. Avoid erect poses in lower grades, and in other grades unless the pupils have considerable proficiency in sketching.
- (e) Do not "block in" in the manner suggested for still life.
- (f) Do not draw a line to represent the floor.
2. *Suggestion for study.*—(a) Study leading lines and proportion. (There is no time for finding proportion mathematically.)
- (b) Pay special attention to proportion and form of legs, feet, and arms.
- (c) Make short-time sketches, at first working for direction, size, and proportion; no detail. After that spend more time emphasizing good form. Do all pose work in a large sketchy way.
3. *Subjects.*—(a) Pose to illustrate a story.
- (b) Pose a child and have other pupils tell the story about the pose.
- (c) Post to illustrate action or occupation.
- (d) Post to illustrate feeling.
- (e) At special seasons, characters suggested by the season may be represented simply.
4. *Composition.*—When sketches are made to use in composition, each sketch should be drawn on a separate piece of paper, in order that there may be room to complete the study. Copies should not be used.

#### XV. ANIMAL STUDY.

1. *List.*—The following list is given to suggest animals usually available: Rabbits, dogs, cats, cows, horses, donkeys, goats, geese, ducks, chickens, turkeys, and parrots. In some schools other animals have been drawn also.
2. Whenever it is possible, have animal sketches made out of doors.
3. *Sketching.*—The drawings of animals should be large and left incomplete, a few being made on each page, unless the animal keeps still for a long enough time to make a complete study. Do not go on with a drawing when the animal has changed its position.

#### XVI. DESIGN.

1. *Construction.*—(a) Rulers and measurement should be used in planning all "made" objects above second grade, as one of the objects of this work is accuracy.
- (b) In making boxes, baskets, frames, etc., allow for large laps, as this gives firmness. Laps for the corners of lids ought not to be cut out, but left and pasted. Finish neatly. Leave no raw edges.

(c) In the first and second grades, small made objects have proved more satisfactory than the larger ones. Double paper and paste together to make legs, backs, handles, wheels, etc., of objects to make them firm. All made objects should be pasted.

(d) When eyelets are used in constructive design, they should be made at home with a punch or a wire nail.

2. *Decorations.*—(a) When design is to be applied, the object to which it is to be applied must be considered before doing the work, so as to have it right in size, etc.

Work for variety of design. Have each child cultivate his creative faculty.

Good design demands the proper relation of both large and small shapes; therefore avoid the use of too many small unconnected spots. The shapes of the spaces formed in the background are as much a part of the design as the unit itself.

(b) Use subdued colors in all designs, avoiding violent contrasts.

(c) All borders should have marginal lines and no design should extend to the edge of the space decorated.

(d) All lettering on book covers, valentines, Easter cards, etc., should be printed directly on the paper, not done separately and pasted on.

All capital letters should be of an equal height. Erase construction lines. Do all lettering in a color of the decoration.

Diagonal arrangement or vertical and horizontal lettering on the same page should be avoided.

(e) Work done for special seasons (Thanksgiving, Christmas, etc.), is to be given to the children for the special day, except one retained for the office. That one must be original, not duplicate.

(f) Where booklets are made a quotation appropriate for the season should be done as a writing lesson on separate paper made slightly smaller than cover, keeping the same proportion, and fastened inside the cover.

Avoid Christmas stockings, slippers, hearts, Easter eggs, and sprays of flowers, unconventional in treatment, for decoration.

#### XVII. COMPOSITION.

Squares and oblongs are the most desirable forms for composition. Circles and ellipses should be avoided.

*Reference books useful in the study of composition and design.*

BATCHELDER, ERNEST A. Principles of Design.

"Design in Theory and Practice," in *The Craftsman*, October, 1907, to September, 1908, inclusive.

CLARK, ERNEST E. A Handbook of Plant Form.

CRANE, WALTER. Line and Form.

DAY, LOUIS F. Nature in Ornament.

DOW, ARTHUR W. Composition.

FOORD, J. Decorative Plant and Flower Studies.

NICHOLSON, WM. The Square Book of Animals.

An Alphabet.

Types of English Life.

The Craftsman.

Palette and Bench.

The Ceramic Studio.

Manual Training Magazine.

#### XVIII. LANDSCAPE COMPOSITION.

All landscape is expressed in terms of representation or decoration.

1. the composition of the picture must be carefully considered.

(a) Unequal spaces are usually more interesting than equal ones.



(b) The principal object of interest should be near the center of the picture space, not in it.

2. The composition from either mimeograph copy or nature should be selected with finders and sketched lightly in pencil before working out in pencil or color.

3. No landscape work should be attempted before developing the observation and love of beauty in nature. Landscape lessons should be preceded by observation lessons in order that the pupils may have ideas to express about color in nature. The difference between the color overhead and near the horizon, sunrise and sunset, clear and cloudy days, calm and windy days, spring, summer, autumn, and winter, and the effect of distance upon color at all times, must be emphasized. Special attention should be given to the drawing of roads, tops of houses and chimneys, and the relative size of objects, near and distant. Notice particularly the contrast for tones.

4. In decorative treatment of landscape flat tones are used, each shape and space being treated as part of the whole design.

In selecting a color scheme the true values of nature are not considered.

In representative landscape, edges are kept soft and broken, while in decorative they may be outlined with an even tone of color.

#### XIX. ILLUSTRATIVE DRAWING.

##### *Order of Development:*

##### *Landscapes.*

1. Placing of horizon line.
2. Treatment of sky and ground.
3. Treatment of distant foliage.
4. Composition of large trees in the foreground.
5. The placing and proportional relations of people, animals, houses, and other objects.
6. Perspective of roads and rivers.

##### *Street scenes.*

- I. Parallel view—looking across the street.
  1. Placing of horizon line.
  2. Treatment of sky and street.
  3. The placing and proportional relations of buildings, people, and objects on the street.
- II. Angular view—looking up the street.
  1. Perspective of street, buildings, people, and objects on the street.

##### *Interiors.*

1. Division of wall and floor spaces.
2. Treatment of walls, floor, and windows.
3. The placing and proportional relations of the furnishings and people.

As each new topic is added the preceding steps should be constantly reviewed. All lines should be eliminated. To obtain the best tone the crayon must be held close to the paper so that the beveled side may be used.

The illustration must express by its color values the time of day and season of the year.

Figures and animals should generally be in action.

The sky space should be covered with color down to the horizon line and the ground down to the lower edge of the picture before foliage, houses, or people are placed.

Houses, trees, animals, and people should be placed in the picture between the horizon and lower line and not on the line.

A definite subject should be in mind and each child's illustration is not complete without a subject written at the bottom of sheet. Plan for this spacing when drawing margin.

Where quotations are to accompany illustrations the sheet must be composed, taking into consideration spaces for both keeping the picture as large as possible. The quotation should never appear in ink.

Every quotation must contain some word picture which it is within the power of the children to translate into a color picture. Each should show that it is simply another means of expressing the same emotion.

Complete each illustration with a strong, dark crayola line inclosing it.

IX. PICTURE STUDY.

Picture study is to be pursued in all grades. The pupils in the fifth to eighth grades, inclusive, are, in addition to the study of the picture, to write a brief composition about the picture and the artists for their grade. In studying the pictures the teacher should tell the pupils the most interesting points about the picture and the artist in a simple, direct way. There is no desire for stilted composition or biographies which repeat facts from cyclopedias.

The object of picture study is to bring the pupils in contact with some of the great works of art, and to arouse in them a love and appreciation of what is beautiful.

With this thought in mind, the pictures chosen are such as time has tested. Another object in view has been to create a standard by which the pupils may judge the worth of new works of art as they meet them.

When studying pictures the teacher should meet the pupil's love of the beautiful by giving him information and suggestions that will open before him the true meaning of the picture.

*Special Reference List.*

Masterpieces in color series. (See alphabetical list for individual artist.)

Great Artist Series. (See alphabetical list.)

HOPKINS, J. F. Architecture, 65c.

CAFFIN. A Child's Guide to Pictures, 65c.

How to Study Pictures, 65c.

WHITCOMB, IDA P. Young People's History of Art, 70c.

BRYANT, LORINDA. Pictures and their Painters, 65c.

A list of books for general reference will be found on the last pages of Course of Study, 1909. Each teacher must adapt the information found in the books she consults to her grade, and not give the pupils more than they can grasp.

FIRST YEAR OR GRADE.

First and second quarters.

*Before teaching any subject read carefully the directions in "General suggestions for all grades."*

Mark the quarters in first grade on all papers I-1, I-2, I-3, or I-4.

Use bogus paper for all dictated work in construction when colored paper is not specified.

For pupils entering the grade in September.

SEPTEMBER.	Number of periods.
1. Where looms are in use, work on design for mats.....	5
Those who do not use looms give the time to substitute work. (See Bulletin.)	
2. Teach some underlying principles of illustrative drawing.....	6
(a) Sky and ground.	
(b) Tree study, combined with (a), introducing trees with foliage from plates. (See General Suggestions XIX.)	
3. Make stained glass effect.....	3
4. Plant Study—Color.....	3
(See General Suggestions VII, 4 to 8, inclusive, and XII.)	

For pupils entering the grade in September—Con.

OCTOBER.	Number of periods.
1. Plant Study—	
(a) Color.....	9
(b) Ink.....	4
2. Illustrative Drawing.....	2
A definite subject should be in mind, and each child's illustration is not complete without a subject written at the bottom of sheet. Plan for this spacing when drawing margin.	
NOTE.—At this time allow pupils for seat work to make squares and fold into 16 small squares, preparatory to lessons in construction.	
3. Design—Construction—	
(a) Square box.....	2
(b) Lid for square box.....	3

For pupils entering the grade in September—  
(Continued.)

NOVEMBER.		Number of periods.
1. Plant Study—		6
(a) Color.....		2
(b) Ink.....		2
2. Design—Construction—Develop principles of structure. Work for variety.		3
(a) Basket.....		6
(b) Wagon.....		2
3. Illustrative Drawing.....		2

DECEMBER.		Number of periods.
1. Design—Use colored paper.....		13
(a) Make picture frame. No decoration.		
(b) Any Christmas work desired.		
(See General Suggestions XVI.)		
NOTE.—Keep form simple and dignified. Do not use ribbons.		
2. Picture Study.....		2
(See General Suggestions XX.)		

JANUARY.		Number of periods.
1. Object Study—(See General Suggestions VII, 4 to 8, inclusive.) Black crayon.		4
(a) Christmas toys, above or below the eye, according to the size and character.		3
(b) One large object above the eye.....		4
2. Illustrative Drawing—Introducing bare trees from plates.....		3
3. Design—Construction—		4
(a) Sled.....		3
(b) Cradle.....		4

For pupils entering the grade in the middle of the year.

FEBRUARY.		Number of periods.
1. Where looms are in use, work on design for mats.....		5
Those who do not use looms give the time to substitute work. (See Bulletin.)		
2. Teach some underlying principles of illustrative drawing.....		5
(a) Sky and ground.		
(b) Tree study, combined with (a), introducing bare trees from plates.		
(See General Suggestions XIX.)		
NOTE.—At this time allow pupils for seat work to make squares and fold into 16 small squares, preparatory to lessons in construction.		

Third and fourth quarters.

Mark the quarters in first grade on all papers I-1, I-2, I-3, or I-4.

Use bogus paper for all dictated work in construction when colored paper is not specified.

FEBRUARY.		Number of periods.
1. Design.....		12
(a) Border or surface, colored crayon on colored paper.		
(b) Valentines (use the knowledge gained above to apply in decoration). Do not use ribbons.		
(See General Suggestions XVI.)		
2. Make a study of winter trees from plates.....		2
3. Illustrative Drawing—Combined with tree study.....		4
A definite subject should be in mind, and each child's illustration is not complete without a subject written at the bottom of sheet. Plan for this spacing when drawing margin.		

MARCH.		Number of periods.
1. Design—Construction—Go-cart.....		6
2. Object Study—Pencil or black crayon. Large single objects above the eye.		4
(See General Suggestions VII, 4 to 8, inclusive.)		
3. Object Study—Single objects below the eye. Pencil or black crayon.....		4
4. Pose—Ink, pencil, or black crayon.....		4
5. Illustrative Drawing.....		2
(See General Suggestions XIX.)		

For pupils entering the grade in the middle of the year—Continued.

FEBRUARY—continued.		Number of periods.
3. Design—Construction—		2
(a) Make a square box.....		3
(b) Lid for square box.....		4
(c) House.....		

MARCH.		Number of periods.
1. Design—Construction—Develop principles of structure. Work for variety.		3
(a) Sled.....		4
(b) Shed.....		6
(c) Wagon.....		
NOTE.—At this time twigs might be put in water in the schoolroom to sprout for plant study.		
2. Make stained glass effect.....		3
3. Illustrative Drawing—Combined with tree study.....		4
A definite subject should be in mind, and each child's illustration is not complete without a subject written at the bottom of sheet. Plan for this spacing when drawing margin.		

APRIL.		Number of periods.
1. Design—Construction—Cradle or chicken coop.....		4
2. Plant Study—		4
(a) Budding twigs. Ink.....		6
(b) Pussy willow, jonquils, or any plant that can be obtained. Color.....		2
3. Tree Study.....		4
One class at blackboard, one class use colored crayon, and exchange classes once during lesson.		
4. Illustrative Drawing.....		4

MAY.		Number of periods.
1. Plant Study—		9
(a) Color.....		4
(b) Ink.....		6
2. Design—Construction—Furniture for doll house.....		

JUNE.		Number of periods.
Illustrative Drawing—		
(a) Combined with tree study.		
(b) Interiors.		

APRIL.		Number of periods.
1. Construction—Original.....		4
2. Design—		3
(a) Lettering the word "Easter" on squared paper.....		3
(b) Make Easter booklet, lettering the word "Easter," nicely filling the space. Use colored paper. No other decoration. Do not use ribbons.....		3
Take time of writing to copy an appropriate quotation on separate paper made slightly smaller than cover and keeping the same proportion, and fasten in booklet.		
3. Plant Study—Pencil or black crayon massing, ink or color. (Budding twigs).....		4
4. Design—May basket (woven or plain). If woven use two tones of colored paper.....		6

MAY.		Number of periods.
1. Pose—Pencil, ink, or black crayon.....		2
2. Plant Study—		2
(a) Pencil or black crayon massing or ink.....		6
(b) Color.....		3
3. Animal Study—Out of doors when practicable. When indoors, water color is suggested.....		

For pupils entering the grade in the middle of the year—Continued.

MAY—continued.	Number of periods.
4. Design—(a) or (b).	
(a) Make folded case for holding the children's papers with decoration in colored crayon to be completed in June.....	7
Develop design, keep simple.	
(b) 1. Make folded case for holding the children's papers, without decoration.....	7
JUNE.	
Design—(a) or (b).	
(a) Complete folded case with decoration.	
(b) 2. Make oblong box with separate cover, according to given measurements. Allow laps for pasting.	
SEPTEMBER.	
1. Make a study of trees from plates showing foliage.....	2
2. Illustrative Drawing—Combined with tree study.....	4
A definite subject should be in mind, and each child's illustration is not complete without a subject written at the bottom of sheet. Plan for this spacing when drawing margin.	
3. Animals—Out of doors when practicable. When indoors, water color is suggested.	4
4. Plant Study—Color.....	6
(See General Suggestions VII, 4 to 8, inclusive.)	
OCTOBER.	
1. Plant Study—	
(a) Color.....	9
(b) Ink, pencil, or black crayon massing....	4
2. Pose—Ink, pencil, or black crayon.....	5
3. Illustrative Drawing.....	2
(See General Suggestions XIX.)	

For pupils entering the grade in the middle of the year—Continued.

NOVEMBER.	Number of periods.
1. Plant Study—Pencil or black crayon massing or ink.....	2
2. Design—(a) or (b).	
(a) Make folded case for holding the children's papers, with decorations in colored crayon.....	13
Develop design, keep simple.	
(b) 1. Make folded case for holding the children's papers, without decoration.....	7
2. Make oblong box with separate cover according to given measurements. Allow laps for pasting....	8
3. Illustrative Drawing.....	2
DECEMBER.	
1. Design.....	13
(a) Make picture frame of colored paper with strawboard foundation. Work for strong corners. No decoration.	
(b) Any Christmas work, using colored paper. Do not use ribbons.	
2. Picture Study.....	2
(See General Suggestions XX.)	
JANUARY.	
1. Object Study—Pencil or black crayon.	
(a) Christmas toys above or below the eye, according to size and character of object.....	4
(See General Directions VII, 4 to 8, inclusive.)	
(b) Large objects above eye.....	6
(c) Single objects below eye.....	4
2. Pose—Ink, pencil, or black crayon.....	4

MINNEAPOLIS, MINN.<sup>1</sup>

Drawing and paper cutting are used as a means of illustrating stories through the first four grades.

Object drawing is taught technically in the fifth grade and upward through the high school.

Perspective begins in the fifth grade and continues through the high school.

Design in first grade and through high school. The subject is more or less dictated throughout the grades in relation to construction work. Abstract principles are touched upon very little below the high school.

Color is used throughout grades and high school. Colored crayon in the first grade and water color beginning with the second. Crayon is used for design almost entirely in all grades. A definite study of color combinations, etc., is begun in the seventh grade.

The following is taken from a paper read at a recent art association meeting:

Minneapolis has in former years borne a reputation for trying experiments with all the "fads." We have been trying lately to be very conservative, and maybe you will think we are dropping behind. Several years ago we cut the time of drawing to one hour a week. With another hour for handwork in the first five grades and the two subjects now under one supervision we hope to do more in applying our design lessons. I have used freely an idea gained at one of our former meetings—that of cutting designs in the primary grades. I supposed the greatest difficulty would be found in arranging the units for a broader pattern, but I found that the children who had done so much free-hand illustrative cutting could not easily cut from folded paper a symmetrical unit. So we began with paper dolls. From the shape of the dolls we came to noticing the shape between the figures, and soon we became much interested in shape as subject matter growing from the realistic to the conventional. Sometimes we cut a number of figures together and use the result as a line of decoration for

<sup>1</sup>M. Emma Roberis, supervisor.

booklets. Sometimes we cut one larger unit and use it by itself. At Christmas time this cutting exercise serves many decorative purposes and is much to be preferred to the oft-used pictures from advertisement, postals, and fashion plates, or the even more objectionable hectographed outlines filled in by unsteady fingers and pasted to articles gold lettered by the teacher. Our efforts to have the children's work given its well-deserved place of honor have been well rewarded by the favorable comparison of the school product with the things offered for sale in the stores. And indeed I think the best of the little picture-mounted calendars, etc., on the market are due to school influence. We have used the paper cutting for design in various ways through the first six grades for sofa pillows, tiles, and embroidery and outline in the sewing department. We also use the cutting as a stencil in borders and surface. These ideas are not new, but seeing the illustrations which I have brought may help some one who is looking for different ways of using old ideas. In the fifth grade we begin using the ruled paper and thinking out our space relations more definitely by breaking up a geometric shape, such as a triangle or rectangle. In the grades above we draw first from nature and try to get our design suggestion from the forms thus obtained. We do not try curved lines at all in the grades—putting the emphasis entirely upon balance of black and white and pleasing variety in shapes and sizes of spaces. I am sure we talk more about the background shapes than about the units, as the relation of the background to the design as a whole seems the most difficult thing to teach. We do not try many different exercises, and I find myself reducing the number and difficulty each year—dwelling more and more upon the beauty of simplicity and the good taste which may be shown in the quiet tones selected, the general proportions of an article, and often in the absence of "applied design."

Our course in clay modeling has proved rather satisfactory and capable of being carried out in the ordinary schoolrooms. We have nuts and fruits on a plinth in the second grade, animals in high relief in the third, low relief tile in the fourth, tile with incised design in the fifth, and vase forms with incised decoration in the sixth.

#### DENVER, COLO.<sup>1</sup>

Art Course of Study for the Elementary Schools (Copyrighted). General notes.

#### GENERAL NOTES.

*The course of study.*—All work is arranged according to seasons and should be given at the time indicated. For detailed directions teachers are referred to various teachers' manuals and drawing books, which are supplied as desk copies for consultation. Oftentimes their illustrations may be shown to the pupils advantageously.

*Appliances, models, etc.*—"Model supports" are used in drawing from models and objects. Six are provided for each two rooms; none for single rooms. They are for six places about the room, three in front and three about halfway back, resting on the desks. Place across alternate aisles where possible. See that the shelf portion of the support is level. The color of the ground or background may be changed by placing against them pieces of paper. For instance, in making water-color drawings from leaves and flowers light backgrounds generally are best. Sometimes the supports are advantageously placed on chairs and tables in the front part of the room instead of on the first row of desks. Sometimes one or more large objects are permissible in front. They may be placed below the eye or on the shelf above the front blackboard which is in some of the newer rooms.

In drawing from life the model is generally placed on a table. A large piece of white cloth placed behind on the wall makes the outlines plainer.

The schools have large and small geometric models. The large ones are on an average 4 by 8 inches; the small 2 by 4 inches. When the small ones are used six of a kind are placed about the room on the model supports.

In addition most of the schools have a set of about six Japanese vases.

Frang's and Poor's sheets of historic ornament are provided for grades 7 and 8.

HOLDERS are pieces of cloth board with leather corners and are to hold the sheet of paper while the drawing is being made. Some seventh and eighth grade rooms have drawing boards, which are used in place of holders for instrumental work.

<sup>1</sup> Charles M. Carter, art director.

*Materials required for drawing.*—Ask of the principal permission to see the printed form with the above title. Copy for reference the items and amounts to which you are entitled for the use of your pupils. Supplies are obtained by the principal who sends requisition to the storeroom.

Materials for drawing should be used for drawing only. Particularly does this apply to pencils. Brushes should be cleaned immediately after using and should be kept in something which will permit them to stand point up.

The purchase of water colors is not required of pupils. Boxes containing black or charcoal gray are most desirable. When the course of study specifies brushwork it may be done with ink if colors are not desirable.

*Preparing lessons.*—Generally the teacher should make at least a quick sketch of what she proposes presenting to the pupils. Lessons should not be given without preparation by the teacher.

*Teaching.*—Require the entire attention of pupils when teaching. Have their hands empty. Lead them by the exertion of their own powers to master each new subject. Remember that pupils must acquire true conceptions of what is to be done before expression.

*Judging proportions.*—Throughout the course it is of the greatest importance that pupils should study proportions, learning to judge the largest proportions first and others in order of size and importance. The extent to which this can be accomplished depends on the grade, but it is quite certain that in the higher grades the pupils should have acquired the habit of considering the following:

*A—Distances, comparing.*

Height with width.

Distances of a point from sides of drawing.

Distances of a point from top and bottom of a drawing.

Distances of a point from any two others on the same straight line.

*B—Areas.*

Where are areas similar in size in the subject?

What areas are similar in form?

What proportions have areas to each other?

The areas resemble what simple geometric figures?

*C—Other considerations.*

What points are in the same straight line vertically?

What points are in the same straight line horizontally?

What imaginary triangles would be formed by any three points?

What rectangle would be formed by any four points?

What lines, real or imaginary, give movement of parts?

What slopes have real and imaginary lines?

Where do produced lines cut the drawing?

*First—Draw after judgment.*

*Second—Test by judgment.*

*Third—Test by mechanical means.*

*Pictorial drawing, notes.*—Accustom the eye to take in the work as a whole. Frequently judge the drawing by viewing it at a distance when placed beside the objects represented.

In all free-hand sketching pencils are to be held as an artist holds a stick of charcoal. Models should be used invariably when the subject requires them.

In pictorial drawing have pupils draw what they see, not what they imagine.

The subjects should be placed in the same position at each lesson with great exactness until the representation is completed. Also, the arrangement of light should be the same.

*The free-hand alphabet, notes.*—The free-hand alphabet cards are in packages of 50. Principals are expected to order one package for each room filled with pupils of grades 4, 5, 6, 7, and 8. Pupils should be able to make these letters from memory.

The use of titles is left to the judgment of the teachers. Frequently they are not necessary. Generally they are most appropriate in connection with decorative and working drawings.

Titles, when used in connection with work of grades 1, 2, 3, and 4, may be written. The free-hand alphabet may be used, if desired, but the alphabet cards are not provided grades 1, 2, and 3, and, if used, must be borrowed from the higher grades.

Printing is not required on the back of drawings, but may be placed there for practice.

Horizontal guide lines are generally used in making words, but should not show in the finished drawing.

Names or initials of pupils on the front of drawings are not to rest on visible lines. The free-hand alphabet looks best when made with a wide line. A blunt-pointed pencil should be used.

Pupils place the letters of words generally too far apart.

The letters may be simplified for the lower grades by leaving off the "serifs."

In the lighter grades of decorative lettering it is well sometimes to make wide-surfaced letters, using double lines, filling the interior by the brush with color.

*Labeling drawings.*—Working drawings may show, generally, on their face, by printing name of school, title, name of pupil. All other drawings or paintings are to show on their face the name or initials of the pupil only. On the back of such works write name of school, grade, title, and age. The size and position of the name or initials should be carefully considered with reference to the composition of the drawing or painting.

*Special exercises.*—Special exercises in connection with each grade are given. The idea is to obtain from each pupil an acceptable drawing or painting. If the first production is not satisfactory it is to be attempted again, and even a third time, if the teacher is not satisfied with the results. It is desired to cultivate, on the part of each pupil, persistence in doing the best of which he is capable. The work is to be judged rather by the effort it shows than its technical perfection. Pupils are now allowed considerable "freedom of expression." It is hoped that these special exercises will cultivate greater painstaking without in anywise restricting freedom. The best expression by drawing or painting is undoubtedly that which follows careful observation. Envelopes are provided for these exercises.

*Illustrated booklets.*—Collecting illustrations from newspapers and magazines and arranging them tastefully to represent some subject as "convergence," "model drawing," etc., have been found highly useful and are strongly recommended.

*Picture study.*—The following outline will suggest a definite manner of studying pictures, particularly the reproduction of works by celebrated artists which adorn several of our schoolrooms. Pupils should know about the pictures of their room.

Further hints may be obtained from "How to Enjoy Pictures," by Miss Emery, and "How to Judge of a Picture," by John C. Van Dyke. Each school is urged to form its own collection of reproductions of celebrated pictures. They may be mounted. Such collections are always interesting to visitors, and quickly tell of the extent to which pupils and teachers have interested themselves in art.

The following are some principles and considerations to be borne in mind when studying pictures:

*The sources of picture making.*

The human mind producing the conception.

Nature—which furnishes the materials.

*What does the picture say?*

What living or inanimate objects does it present?

What are their characteristics, action, expression?

What locality is represented?

Time, point of view.

Extent of realism, idealism.

*How expressed?*

By real or imaginative subjects, having in mind such principles as the following:

Simplicity. Breadth. Repose.

Unity. Harmony.

Proportion. Equilibrium. Masses. Lines, relative tone values.

Variety, how secured. Repetition.

Perspective. Gradation. Subordination.

Concentration. Definiteness. Contrast. Atmosphere.

Color. Dominant, analogous, or complementary harmony. Warmth. Coldness.

What mediums were used in producing the original picture and the duplicate? The first may have been in oil, water color, etc. The second a reproduction by engraving, photography, etc.

*Who was the artist?*

When and where did he live?

Characteristics.

Anecdotes.

What other works has he painted?

*Does the picture teach a lesson; if so, what?*

*Reiteration.*

Write about the picture and the artist.

Collect and classify the works of the artist where possible.

**SALT LAKE CITY, UTAH.**

"Art and Construction in the Elementary Schools." General notes with charted outline.

## CLAY MODELING.

Clay modeling and construction have the same educational advantages. Clay is building material and gives the child a chance to express his only knowledge of form—the facts of form. Representations on flat surfaces are learned and at best are only conventions. It seems better to allow young children to make the real forms and gradually lead them to conventional representation. Clay supplies the right means of doing this.

By working with clay one becomes acquainted with the bulk, substance, material or mass of the subject. He is dealing with tangible material that must be shaped from every side into the form he knows. This gives excellent drawing experience and his dealing with "stuff" or substance in terms of drawing causes him to think in terms of mass.

There are simple steps from modeling in the round to drawing on a flat surface. First there is modeling in half-round, then in high relief, which is a nearer approach to drawing but still a representation of bulk or substance, and finally, bas-relief, where one must still think of mass and inclosed substance, which is very similar to graphic representation on a flat surface. Although relief modeling is quite as conventional as drawing, yet the habit one acquires of thinking in terms of mass should cause one to express in terms of mass even though lines are employed.

Mass drawing is quite as much a mental process as a physical one. If the stages suggested for modeling be followed in water-color painting, keeping in mind the idea

J. Leo Fairbanks, supervisor.

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of colored bulk, and then is succeeded by charcoal mass, which represent color with a dark medium, the children should have little trouble with mass or even line drawing.

With clay, after the general size of the bulk has been shaped into action or direction, small unformed pieces are to be added in correcting the drawing and shaping the projections after they have been made part of the original mass. By adding or taking away pieces as necessary good results may be obtained.

Specimens worthy of preservation should be kept from each lesson. Some might be cast in plaster of Paris, or allowed to dry and be fired later. One cast is expected from each lesson in the grammar grades (two from a subject in relief—one for the school and one for the pupil).

The clay is taken care of by the janitor, who will supply at least 1 pound for each pupil every time the class models.

Small, insignificant models must not be allowed. Generally model on a base. When thin or slender figures are attempted in the round, wires should be used for supports. There should be few projections in modeling. Quick drying will crack the clay.

A damp cloth should be provided for each child so he can wipe his hands and wrap the model so as to keep it damp for another recitation. Oilcloth is very helpful in keeping the desk clean and keeping the dampness in the clay.

If the class is working in the round the position of the model should be changed frequently, so as to be seen from all sides.

Pottery is made by building and by coiling. Patterns should be made to determine size and shape before attempting it with clay.

#### CUTTING AND TEARING.

Free-hand cutting and tearing are excellent means of getting knowledge of form. To avoid mere outline it is advisable to do most of this work by snipping or cutting away from the mass. Continue to improve the suggested form by cutting away small pieces. Cutting to line or on sketched forms are helpful exercises.

#### PAINTING AND COLORING.

Water color should generally be put on with direct touch. Spots of white paper will show through the color if it is put on in the right way. Seldom should pupils work over and over wet color. Insist on pupils using much water so that color will flow or flood.

At the beginning of a lesson all pupils should moisten each cake of color. Taking color directly from the pans when small surfaces are to be covered will cause pupils to use less color and to paint in a direct way. Water cups need have but little color in them at the end of a lesson.

A pencil sketch is helpful in making a complicated water-color painting. The drawing should be sketched only. It is advisable to paint the lighter parts first. Parts that are to be darker can be painted with another wash to give them the desired tone.

Lines are most easily drawn by holding the brush at right angles to the paper and steadying the hand on the little finger. Framing should be done in this way. Poster effects are obtained by outlining the drawing with uniformly heavy color or pencil lines.

After each lesson the boxes and brushes should be thoroughly cleaned. Brushes should dry with the hair straight. New pans of color should replace those that are empty.

White should be used only for accents, for lines, or for letters of pure white on darker ground color. Charcoal gray or black is to be used only as a pure color and never to darken other colors. To darken a color use a combination of ultramarine blue, car-

mine, and sometimes a little burnt sienna. Yellow ocher is to be used for earth or ground color, flesh color, background; and tempered yellow skies. Yellow ocher combines with blue without producing a decided green, and the two in combination with red will produce most any color desired (depending, of course, on the amount of each color used).

Water-color work that is exhibited in the autumn should be protected from the flies.

Wax crayons should be used much like an ordinary pencil, with direct touch. Do not allow pupils to make a solid, closely filled mass of color. Use crayons for book-cover decorations.

#### ILLUSTRATIVE DRAWING AND COMPOSITION.

Mental images must be clear, else they can not be well expressed in visible form. Illustrative drawing helps to fix these concepts, trains in careful observation, develops imagination, and allows free and spontaneous expression.

The connection with nature study should be very intimate. Pupils should represent the great phenomena and passing changes of nature rather than analytical representation of small facts. Drawing may be used for recording facts, but this is not its great purpose. Landscape composition is particularly well adapted to nature illustration, but the suggestions should come from observation rather than from dictation.

After a story or description has been read the mental image should be clarified by recalling scenes similar to the one described. Combine the impressions and memories to form vivid pictures of the subject. (Imagination is entirely dependent on memory or combination of memories.) Dramatize the action or from the pose draw figures and add the environment.

Before objects are placed in a composition the sky should be colored down to the horizon and the ground colored up to the sky (allowing for difference in the tone of near ground and distant mountains). The proportional relations of people, houses, trees, buildings, and furnishings should be considered next.

In every grade the strong characteristics must be well drawn. Insist on well-proportioned figures whose limbs joint properly, trees that are solid and branch naturally, mountains that are characteristic of real mountains, houses with fairly true perspective, table line or distant level ground (horizon). If shadows are represented they should be more than dirty spots, and the color of the ground more than black spots under objects.

When the drawings are well underway some of the best should be exhibited and the good qualities pointed out or a demonstration given of the possibilities of some poorer pieces. When copies or illustrations are employed as incentives, great care must be exercised. If pictures are shown too early pupils are almost sure to reproduce them, because the latest and most vivid impression is that caused by the copy. Remember the purpose of illustration is to get the pupil to express himself.

When individual pieces are finished have the pupil draw marginal line around them and display them on the chalk tray. This exhibition is a healthy incentive for the class.

Aim to develop the imagination and fancy by seeing pictures in scribbles, somewhat as children see pictures in the clouds of the sky or in the glowing coals of the fire. Work these impressions into real images. Do not encourage vague, indifferent, or careless work, but allow the fancy to roam freely, and when it catches an idea, develop it as far as possible.

(1) Avoid two compositions in one picture. (2) The middle must be strong. (3) The interest should carry from one side to the other by balancing across the middle from the front to the back. (4) The principal center of interest should be at about

the intersection of a vertical and a horizontal line each passing three-fifths of the distance across the space. (5) Avoid uniformity and monotony.

Work in the first grade should be free and spontaneous, without much direction from the teacher. Some children naturally draw with lines. This must not be discouraged. After two months all illustrative drawings should be made within marginal lines. This aids the child in filling the space to better advantage and improving the composition.

In the second grade the majority of children draw in mass with a fair degree of color representation. Immediate observation of some active figure that represents some character, movement, or game will furnish ideas from which they draw from memory.

In the third grade the children should make their drawings to fill spaces of varying sizes and proportions. To perfect their drawing they should work from immediate observation and gradually will require objects before them.

In the fourth grade more attention should be paid to arrangement, placement, and representation. More time must be spent in object drawing and drill for illustrative purposes. In the grammar grades composition is studied more systematically in illustrating subjects taken from literature, etc. Principles of composition are to be studied.

#### DRAWING.

Drawing in the lower grades is pretty largely for illustrative purposes. As the child advances he realizes that his work needs perfecting. By seeing others work he is gradually led to pose drawing and object drawing.

In the grammar grades the subjects are chosen partly to help pupils learn principles of perspective, which should be written in the pupil's own language under the direction of the teacher. These principles are applied in their illustrative work.

Charcoal is to be used almost exclusively in the primary grades. It is easy of manipulation and trains one to think in terms of mass or body or inclosed substance. Because a pencil point is suggestive of line it is not favored as a medium before the fifth grade. Even then mass drawing is to be continued because the natural tendency with line drawing is to think of detail. Outlines cause children to look for trifling details in the contour and to forget the large construction. Accents on the edges of colored mass should not be considered outlines. Because charcoal admits of most any finish, it is adapted to any grade or age and is continued through the school course. Soft bread rolled into a dough ball is the best kind of charcoal eraser.

To overcome the halting, indirect way of drawing details rather than large characteristics, pupils should make sketches in a given time (2 to 5 minutes). After the sketch is made a few measurements and tests with horizontal and vertical pencil should be made in concert.

Sketching is the foundation of all work in drawing. One becomes more direct because of representing the whole before the parts. Immediately one must express the action. The right placement of large proportions is fixed, thus reducing the placement of perplexing details to a minimum. The eye is trained in quick and accurate perception, labored efforts are overcome, and memory holds the big impression while one works. Sketching does not preclude finish. Sketching makes the best finish possible.

Pencil tests are introduced in the fourth grade and are to be used thereafter. Measurements are always comparative and should be made only after the subject has been sketched. Horizontal and vertical pencil tests are the most satisfactory. A string looped over the fingers and held in parallel lines is very helpful. The use of two strips of paper held at an angle so as to cover the edges or corners of the object to be tested is also a good device.

Shadows are as helpful in defining the shape of objects as the contour. They should be sketched while the original drawing is being made.

When corrections are to be made the right form should be sketched or indicated before the wrong one is erased. If a new drawing is to be made, pupils should make a fairly accurate sketch over the old drawing so as to correct mistakes and have a definite idea of the right form before making a new drawing.

When pupils have ability they should be allowed to draw in their own way. Right placement, good expression, and good perspective must be required of all pupils. Have a high standard but not a fixed one.

Blackboards should be used much by all grades. Excellent opportunities are afforded for giving directions to the whole class as well as criticism to the individual. About 15 per cent of the class should draw at the board every day.

Marginal lines are to be used only in illustrative drawing, or when only part of the object is represented, or when some of it is cut off by the outside limit of the drawing.

Subjects chosen for object drawing should be vitally interesting. Be sure they are large enough and near enough to be seen well by every pupil. Have them well placed on a simple ground and in front of a pleasing background. Take thought in arranging the group compactly, but do not waste time in composing it. Mark individual pieces of the group so that their positions may be easily located next day, if more than one period is spent in finishing the work.

A cardboard or compo-board, large enough to form a background from any position in the room, should be used in object drawing. Devise some means of tilting the ground so as to give the appearance of a surface below the eye.

Type solids may be drawn for experience and for learning their names.

At the close of the recitation all work should be collected and marked by the teacher. Later it will be returned to the pupils, who may make corrections and file the work in their portfolios.

Chalk and charcoal drawings should be "fixed" before they are returned to pupils.

Caricatures and funny subjects help pupils to be more direct, to express essential characteristics, to draw freely, to gain control of medium. They should be indulged in occasionally. Memory drawing helps to fix images in the mind and gives the hand control in reproducing mental images. Use it often.

In map drawing and in copying, the first effort should be to get the direction of the principal masses or to get the structural lines. Details take their proper places in the larger bulk without much labor. Copy work is not means of expression. It is helpful in gaining knowledge of technique or in securing another person's point of view and his ideas of essential qualities. When one copies there is nothing left to his choice because he simply reproduces.

As posed figures should represent some character or activity; they should always be doing something. The side or front view should generally be represented (the back view rather seldom). Pay attention to the proportions of the body, action of the figure, elbow joint, drawing of the foot, etc. A detail drawing of a shoe will be very helpful in drawing feet.

#### STEPS IN DRAWING AND PAINTING.

1. Decide on the size and placement on the paper. See that pleasing margins are left on all sides.
2. Sketch the general movement or direction of the object and indicate the larger proportions.
3. Test the relations of parts, the action or direction of the figure, points that are in the same vertical line and those that are in the same horizontal line, where projected lines and curves would cut more distant lines or edges.
4. Add essential characteristics and accents. Sign according to form.

## PERSPECTIVE.

## Definitions.

- Line: A line is the distance between two points.  
 Point: A point is a mark, a stop, the end of a line, or place of intersection of two lines.  
 Surface: A surface is a bounding plane.  
 Edge: An edge is the meeting place of two surfaces.  
 Corner: A corner is the place where more than two surfaces meet.  
 Horizontal: Parallel with the surface of smooth water.  
 Parallel: Parallel means running or extending in exactly the same direction and everywhere equally distant.  
 Foreshortened: Foreshortened appearance is the apparent shortening of edges or surfaces due to the object being placed obliquely or parallel to the visual rays.

## RULES.

1. The more distant of two equal lines or objects appears smaller.
2. A plane so placed that its center is at right angles to the visual rays is seen in its true or real dimensions; or planes and lines that are parallel to the picture plane are represented in their true dimensions; those that are not parallel to the picture plane are foreshortened and consequently present a distorted appearance.
3. A horizontal circle on the level with the eye appears a straight line.
4. A horizontal circle above or below the eye appears an ellipse whose long axis is horizontal and always the same length, while the short axis becomes shorter as the circle nears the level of the eye.
5. When one end of a cylinder appears to be a straight line, the other end appears curved.
6. When an end and a curved surface of a cylinder are seen at the same time, the end appears an ellipse.
7. The long axis of an ellipse is at right angles to the axis of the cylinder.
8. Elements of a cylinder are tangent to ellipses representing the ends. They do not come on the axis. (The same rule applies to the cone.)
9. Foreshortened parallel lines or edges appear to converge or approach each other at the farther end.
10. Horizontal parallel retreating edges or foreshortened lines appear to vanish at the level of the eye. Those above the eye appear to descend or vanish downward, and those below appear to ascend or vanish upward.
11. When two or more faces of a prism are seen at the same time, none of them can appear in its true or real shape.
12. If parallel lines or edges of a face of a prism vanish to the right, those on the left side vanish to the left.
13. Vertical edges are always represented with vertical lines.
14. The center of a horizontal circle does not appear to be equidistant from the front and back. (The apparent center is in the middle of the long axis which bisects the short axis.) It is therefore evident that the long axis does not coincide with the diameter of a circle.
15. The base of a foreshortened horizontal triangle is not bisected by the line representing the altitude, because the nearer half appears longer.

The rules should be discovered by pupils and formulated in their own words. Written statements, together with illustrative clippings, should be bound under the covers of "Art Booklet."

## DESIGN.

1. Design is a term used to indicate the establishment of a relationship of mass or space. (Any relationship of spaces is more interesting than blank spaces.)
2. Balance is the equivalent of force; either through movement or attractive power.

3. Rhythm is continuous or joint action by line or mass.
4. Harmony is a consistency of relations.
5. Unity indicates strength or material attachment.

## PRINCIPLES.

Good design is always orderly, calm, and respectful, clear in its expression, accepting quietly the limitations imposed on it by material, shape, etc., never making an undue plea for attention, satisfied with the surface it ornaments without attempting to represent reality or to deceive by making one believe it is something it is not.

A design must be made for use and not remain a paper pattern. It must be made to look fine and possibly beautiful, but always orderly and interesting.

Only those forms that are themselves decorative admit of decoration. Lowly objects should not seek elegant ornamentation. The extent of the decoration is governed by the service the object must yield. Necessity must govern design. Objects must demand the ornament and not appear to exist merely for the decoration. Structure determines the form of the ornamentation.

Simplicity is a virtue in design if the interest is maintained. There should be enough ornamentation to overcome the feeling of emptiness. Sometimes empty spaces are interesting if variety exists in the space relations. Shape should always be emphasized. Edges should not be crowded. There should be no diagonal lines or crosses to weaken the spaces. There should be no quantity of small equal masses, nor wide gaping spaces, nor weak, uncertain lines.

The pattern should be pleased with the space it occupies, should strengthen the natural growth points, angles, etc., and should betray the purpose of the object ornamented and its position whether to lay, stand, hang, or run. The background must always be considered with the pattern.

The beauty we give a design must come from within us. We make new combinations of known forms. Nature may stimulate and inspire but can not help us translate her beauty into design. We must take ideas to nature. Our own inventiveness will determine the worth of our designs.

Originality is in reality a combination of memories. The need of good examples to overcome recollections of bad ones is quite apparent. The teacher should be prepared with examples of good work, clippings, and board illustrations, so as to prevent a multiplication of errors. She should be able to consider the problem from the child's point of view, to determine the type of ornamentation, to reduce it to its simplest elements, to lead pupils to develop good arrangements so far as they are able to be original.

The earliest experiences must be simple and proceed from the known to the unknown. The first designs should admit of original arrangement under certain restrictions, as repeating a form three or five or more times. (One in the center with one or more on each side.)

Conventionalizing requires much time, but the amount of convention often determines the value of the design. Natural elements should be reduced to conventional forms by making simple patterns with uniform lines rather than with the tremulous live lines of nature drawing.

Pupils should practice units with the brush, make silhouettes, strong dark lines, etc. Black and white is the severest test to which a design can be submitted, because of the uncompromising contrasts.

Class criticism should be in terms of design by giving reasons for likes and dislikes.

Unity leads the eye through all the details of a design and gives the pattern consistent repose.

Rhythm means joint action or movement and is secured by regular or measured accent, symmetry, balance of tone, line, or mass.

Harmony is uniformity, either in color, tone, mass, or detail. Incongruities may be harmonized by reducing them to nearly the same value or related measure.

#### WORKING DRAWINGS.

Working drawings are to be made as free-hand working sketches. The conventions of working drawings are to be employed, the relative proportions to be rightly represented, and lettering neatly done. Girls should have experience in making working drawings as well as boys.

In the primary department problems are solved by making paper patterns. In the grammar grades paper patterns are made before the object is constructed in more enduring material.

Letters must have uniform slant, height, and space. Before being drawn they should be lightly sketched to secure uniformity. In printing titles, etc., a copy should be printed on scratch paper and held over the space where the title is to be printed, so that on the cover paper, letter by letter can be reproduced from the copy, which is adjusted to the right position.

#### PICTURE STUDY AND STORIES OF THE LIVES OF ARTISTS.

The purpose of picture study is to acquaint pupils with masterpieces that are recognized by competent judges, to interest them in American art, and to know how to judge pictures, sculptures, architecture, and design.

Reproductions of sketches made by great draftsmen, with mediums that the children use, should be available for study. Great artistic products are thought out by means of sketches which are usually the spontaneous and best thought of the artist.

Study systematically the pictures, statues, and other collections that belong to the building.

Good collections of illustrations would be valuable for study.

Appreciation should be the keynote of picture study. Description, meaning, history of the picture, and biography of the artist are important features, but must be used to understand the picture (not taking the place of a genuine study of art form).

Preparation is necessary; teachers must be ready to lead and to direct; pupils must be ready with interest in the picture.

Interpret the picture. Eliminate irrelevant matter. Avoid asking too many questions and asking concerning minute details. Let your attitude be one of sympathetic appreciation. Children should feel at ease and ready to communicate their ideas. Exposition is out of place. Do not impose your ideas.

Develop the study of pictures by the following steps:

1. By asking leading questions, as follows:

- A. The thought the artist aimed to present; the soul of the picture
- B. The artist's ideal.
- C. Wherein does the beauty of the picture consist?
- D. How far is the scene real; how far is it idealized?
- E. Setting of the picture; city or country; indoors or outdoors.
- F. Center of interest, or main point; composition.
- G. Source of light.
- H. What is told of action or facial expression in the living forms?
- I. What is told of textures?
- J. What is told of natural phenomena, storm, wind, sunshine, temperature, etc.?
- K. What reminder of personal experience is suggested?
- L. What have you to bring to the picture from your own knowledge of what others have said or written or printed or sung?
- M. Title; interpretation.

N. Technique; how was the original picture made; by what process is the reproduction made?

O. A picture shows but one moment of time, What is suggested, therefore, of past or future by this picture?

P. Memorize the picture.

2. By giving information concerning the picture.

3. By relating incidents in the life of the artist.

Is there something about the picture that can not be expressed in words? Is that the quality that made it necessary to express it as the artist did? If so, you may be sure your study is about right. Hang the picture before the class and let it tell its own story.

#### AESTHETIC CULTURE.

Subjects are to be considered that will lead to thinking of making a beautiful city, taking interest in civic improvements, making the environments more agreeable, and giving thought to simple personal adornment.

Beauty should be manifest where our civilized communities are housed as well as in the fields where dumb beasts live.

Compositions are to be written for language work and preserved under the cover of the art booklet.

#### PREPARATION OF TEACHERS.

Preparation is an index to success. It shows what the teacher will approve, what she is striving for, her progress, and gives an opportunity to receive suggestions that will be for personal advantage as well as for the good of the class. Preserve in a portfolio, as standards, the preparations, clippings and drawings from other children.

It is the teacher's business to help the child gain more skill and to produce better work than he could do alone. To accomplish this she should know how to do it by actually producing it before exacting it of the class. Art is not a special subject. Every teacher is expected to teach it. Special talent is not essential to realize the democratic purpose of art in the public schools.

Technical processes require demonstration. The teacher must be able to do the work and have the class imitate the movement until all can do it. For manual operations there is generally a way of doing it, but for the process of expression there are many ways. It would be well to show more than one way when expression is required.

#### PUPIL'S PREPARATION.

It is important that pupils know what they are to do for the next recitation. They can make home preparation or at least prepare mentally by making observations.

Teachers will see that pupils come to the required standard in drawing so that they can do the work in hand.

#### RECITATION PERIOD.

If everything is attended to with dispatch, the periods are sufficiently long to do the work.

No more nor less than the allotted time is to be given to drawing.

Time for distributing material should be reduced to a minimum. Choose many businesslike helpers.

Introduction is to give information and to connect with the previous lesson.

Consider subject matter by leading questions that help pupils to discover facts. Be brief and to the point.

Short drill will help pupils to control muscles and secure ease of execution. Concert work in tests should be given after the subject has been sketched. Free individual expression should follow.



Give individual help where needed. Original expression without some technical ability should be avoided. Technique requires demonstration and should be illustrated in a brief way.

Work should be done with feeling and reverence. Show work cheapens art and our respect for it. Teacher's place is where she can oversee work of the whole class. Pass around rapidly and direct where instruction failed. When you help a pupil, show him and the group around him how to do the work, but avoid working on his product. Let it be his own. During the progress of the class, give class criticisms and have pupils suggest remedies and point out good qualities of work that is held up for criticism, always for improvement rather than finding fault. Show best work during the recitation as a suggestive means of improving poorer work. In the criticism, lead pupils to discover their mistakes and to correct them. Encourage thoughtful work, even though it be below standard in execution. Lead pupils to get individual point of view.

Signatures are to be in the lower right-hand corner only. The name should be printed and followed by the date, abbreviated in Arabic numerals. On the next lower line the name of the school and the grade, printed with a Roman numeral. If pupil's writing is poor have him sign on the back. All clay models should be signed.

Assign work for next lesson.

All work should be collected, stored, marked, and later returned to pupils, who preserve it in their portfolios.

Exhibit the work of the class for encouragement.

#### FINISHING AND SAVING THE WORK.

One finished product is required of each grammar grade child each week. Preliminary sketches, drills, etc., are to be made in the allotted time.

In one minute the drawing should show direction of the figure or group; in five minutes it should be carried a little farther. This kind of work will help to establish the large proportions and overcome the indirect, puttering way of drawing.

Skill and freedom are acquired by practice and sometimes by painstaking effort. Conscious effort is expected in the grammar grades, but labored effort is not to be encouraged. The work should be done with dispatch but not with carelessness.

Good drawing and vigorous execution must always be encouraged. Finish should not be sought at the expense of thoughtful drawing.

Do not accept all products as the child's best effort. He must put thought into his work. Drawing requires one's soul and should not be cheapened with great haste.

At least 80 per cent of the work should be well finished before the recitation can be considered successful. This high average should maintain through the year in every grade.

Insist that everything shall be well done. Instill the idea that what one creates lives after him, and should be at least so well done that all will respect it.

In the primary grades six samples of work from each subject must be saved for inspection. Keep specimens of the best and poorest work and also some on which special help is desired. In the grammar grades the work is to be preserved in the pupil's portfolios.

Two samples from each subject must be left in the principal's office each week. These will be used for standards in the building or in the files of the supervisor, or for special exhibitions. The work must always be the child's own honest effort.

#### DISPLAYS.

Exhibitions afford opportunity for measuring one's achievements or give inspiration by showing what others can do.

A means of displaying work in the room is furnished. Every teacher is required to exhibit the best work and occasionally the work of the whole class. Each recitation

should add many specimens of worthy work for exhibition. Most of them will require trimming.

Do not exhibit always the work of those who are specially gifted. The display is not for show but for encouragement.

The work of putting up and taking down exhibitions should be assigned to pupil committees.

The use of pins, paste, tacks, or nails is prohibited.

Six gray cards 22 by 28 inches are furnished each room. These cards are to be fastened together by means of three pieces of tape 6½ inches long. On the two opposite sides of each card and parallel to the long edges, cut three slits—one in the middle, the others 5 inches from the ends. All are to be five-eighths of an inch from the edge. The tape should be put through the slits in the upper edge of one card and the lower edge of another. The ends of the tape will be sewed together to form a loop. The cards are to hang in series of two, three, or four, according to the width of the space between the molding and blackboard. The hangers are to be of the same length and arrangement as the tape between the cards. The display will be fastened to the cards by means of small pin-fasteners or staples. No paste is to be used on these cards nor are the fasteners to be clinched.

Uniformity in the cards is desired so as to assemble them for building displays or for special exhibitions.

#### BOARD DRAWING.

Each teacher should put a new drawing on the board every month. When mass drawings are attempted they should be "positives," or in other words, the white of the copy should be white on the board, and the dark represented with the dark board, and black represented with black or charcoal. If line drawings are made the chalk should be employed in the manner of the medium from which the copy is made. Select subjects with character rather than picture-card or chromo effects. Elaborate subjects should not be attempted. Limit the drawing to about 24 by 36 inches.

Room ornaments of material form, as leaves, fruit, flowers, festoons, bunting, etc., should remain during the appropriate season only.

Flowers, vases, draperies, etc., as well as good arrangement of books, written work on boards, drawings, displays, etc., make the room cheerful and inviting. Have pupil committees attend to this work.

## Art and construction in the elementary schools Salt Lake City.

	Grade I. 25 minutes per day.	Grade II. 25 minutes per day.	Grade III. 25 minutes per day.	Grade IV. 25 minutes per day.	Grade V. 30 minutes three times per week.	Grade IV. 90 minutes per week.	Grade VII. 90 minutes per week.	Grade VIII. 30 minutes per week.
Subjects.								
Construction and weaving.	Dolls, toys, furniture, for play.	Paper construction, raffia weaving for use and for play.	Textile and string for service.	Community problem, rug cutting.	Cardboard work. Bookbinding.	Manual training. Leather.	Manual training. Metal.	Manual training. Metal.
Modeling and pottery.	In the round. Illustrative.	In the round and very high relief for illustrating.	Relief. Pottery.	Relief. Incised pottery.	Low relief. Tile.	High relief. Pottery, clay.	Figures in the round.	Relief of head.
Painting and coloring.	Wash painting for illustrating primary colors.	Wax crayons, nochrome wash. Illustrative.	Landscape wash. Wax crayons.	Object painting in simple tones. Monochrome.	Direct painting. Primary colors.	Still life. Simple wash tones.	Sketch technique. Harmonies.	Values. Color theories.
Illustrating and composition.	Stories and games. Marginal lines.	Stories and games. Large figures.	Stories. Placement. Space filling.	Arrangement, meaning and training.	Placement, unity, balance, opposition.	Rhythm.	Variety Harmony.	General principles of composition.
Drawing and perspective.	Action. Characters and blackboard.	Houses, trees, horizon. Blackboard.	Figures in action. Mountains.	Object drawing. Technique. Memory.	Circular perspective. Sketching. Technique.	Parallel perspective. Still life. Memory.	Constructive drawing. Cartography.	Sketching with pen and pencil for technique.
Design.	Repeats and border.	Repeats, spots for borders.	Figure repeats.	Corner unit and connecting lines. Covers.	Corner unit. All over patterns. Interlaced lines. Block print.	Monogram. Border lines. Space relations. Stencil.	Space filling, emphasis. Direction. Book plate.	Pierced metal. Modified spaces. Poster.
Working drawings.	Folding.	Folding. Cutting—letters.	Lettering.	Sketch of rug.	Cardboard construction. Working drawings.	Simple letter forms.	Purse. Roman letters.	Huckle. Lamp shade.
Planning and patterns.	Toys.	Toys.	Pottery.	Pattern for rug.	Pottery.	Pottery. Book-binding.	Purse and book-cover.	Lamp shade.
Picture study.	Millet and Murillo.	Rephard and Landseer.	Bonheur. Swan. Bargo.	Michael Angelo and Italian art.	French. Corot. Millet, Rodin.	English and Spanish. Turner, Velasquez.	Dutch and German. Durer and Rembrandt.	American and Japanese. Whistler. St. Gaudens, Abbey.

Aesthetics.	Personal cleanliness.	Clean clothes; playthings.	Yards, walks, home.	Playgrounds, public places, fences. Place for every thing.	Flowers, trees, lawns, Fountains.	Streets and architecture, simplicity and beauty.	Good taste in personal adornment. City beautiful.	Posters. Shops. Home Beautying.
Historic ornament.				Egyptian and Indian.	Greek and Roman.	Romanesque. Saracenic.	Gothic and Renaissance.	Modern home Japanese.

## LOS ANGELES, CAL. (CITY SCHOOL DISTRICT.)

## The Course in Drawing in Elementary Schools.

The purpose of art education is to develop the power of appreciation. We do not aim to make artists of our pupils, but we believe that only through practical experience in drawing and painting can they acquire observant, discriminating, and intelligent eyes. The child in his effort to create gains a knowledge of what is good in shape, space filling, and color. If art is to enter into his actual life he must be encouraged to apply these principles, not only to his drawings, but to practical affairs. Because of his tendency to overelaboration the value of simplicity in environment and personal expression must be emphasized. A most important line of work in the drawing course is composition or design. We begin composition in the lowest grade, as there is opportunity even in a little child's work for individual selection and arrangement. In every grade, in every lesson, the pupil should be allowed to exercise his individual choice as far as possible that the work may be more than mere imitation. We strive to develop the pupil's initiative rather than to force our standards upon him.

The problem of unifying the drawing with the other subjects in the curriculum is carefully considered. As the year's program develops the drawing is used to supplement and illustrate the subjects under consideration, the course being modified to suit various conditions. The invention and imagination shown by the children in their illustrative drawings are ample compensation for the lack of technique.

## FIRST YEAR.

*Illustrative drawing.*—This gives an opportunity to utilize, in the schoolroom, the observations and experiences gained by the child in the outside world. The personal expression of the child is what we value rather than scientific accuracy. Let the work be spontaneous, but gradually correct false impressions. When possible precede the actual drawing by dramatic action. The reading, literature, and manual work continually suggest subjects for illustration.

*Pose work.*—Draw from the model. Teach back view, front view, and side view. Draw children running and jumping.

*Landscape.*—Simple studies of sky and sea and ground. Study trees. The pose and landscape lessons are given in connection with and to strengthen the illustration.

*Nature work.*—Draw flowers, leaves, fruit, grasses, and weeds.

*Still life.*—Draw toys.

*Design.*—Develop rhythm and repetition. Make simple borders for rugs and hammocks.

*Color study.*—Teach the spectrum colors, using the prism. Use colored crayons or water colors in the study of plant life, landscape, and illustration.

*Picture study.*

## SECOND YEAR.

The outline is similar to that of the first year, but calls for better form and rendering.

## THIRD YEAR.

Continue the illustrative drawing, the pose, and landscape work begun in the previous grades. Frequent reference to good pictures and to the model is necessary to improve the quality of the work. The course in literature and reading is full of material for illustration.

*Nature study.*—Use pencil, ink, and water color in representing flowers, fruit, vegetables, weeds, and grasses. Emphasize careful placing and good space filling.

<sup>1</sup> May Gearhart, supervisor.

*Still life.*—Draw toys, hats, caps, Japanese lanterns, and simple kitchen utensils.  
*Design.*—Develop rhythm and repetition. Give opportunity for individual choice, selection, and invention with a few lines. Make simple borders and surface patterns, using brushes and crayons, or printing with corks. Apply designs to book covers and to other models made in the manual work.

*Picture study.*

## FOURTH YEAR.

The illustration of stories selected from the reading and literature continues.

*Pose.*—Draw children from the model. Collect pictures of Greek heroes, Indians, and historical characters to be studied and drawn in connection with the literature.

*Landscape.*—Collect interesting pictures. Discuss shapes and space divisions. Make simple compositions, using pencil, ink, and water color.

*Still life.*—Draw hats, caps, tools, and simple kitchen utensils.

*Nature work.*—Draw sprouting plants, budding twigs, flowers, and fruit on the branch. The shape of the paper used should suggest the model.

*Animal study.*—Bring a bird, a rabbit, or any pet to school for the drawing lesson. Use pencil, ink, and water color. Study pictures of animals.

*Design.*—Place simple designs within a circle or a rectangle. Secure good space divisions. Plan borders and book cover decorations, using animal forms. Make Greek borders and Indian designs to be placed on covers for illustrated stories. Plan designs for lanterns, shades, boxes, and other articles made in the manual work.

## FIFTH YEAR.

*Nature work.*—Draw and paint flowers, fruit, and vegetables. Make decorative panels of weeds, grasses, and seed pods, using crayola and water color, striving to show interplay of bright and dull color. Secure interesting arrangements and space divisions.

*Pose.*—Collect pictures to aid in posing the model. Draw from pictures. Plan decorative studies to illustrate the literature of the grade. Use pencil, ink, crayon, and flat tones of water color.

*Landscape.*—Similar to that of fourth year.

*Design.*—Rosettes, borders, and all-over patterns. Plan patterns for vases and bowls and apply simple decoration. Make a special study of the pottery and decoration of the Indians of the Southwest. Print borders and all-over patterns, using potato blocks.

*Color.*—Teach the neutral scale and corresponding scales of color.

*Picture study.*

## SIXTH YEAR.

*Nature work.*—Leaf perspective. Draw flowers, fruit on the branch, and common weeds, placing the studies within a frame. Secure interesting space divisions. Much of the work will be decorative in treatment. Use pencil outline, ink silhouette, flat tones of charcoal gray, and simple color schemes in water color and crayon.

*Pose.*—Continue the work of the fifth year. Work in light and dark and color.

*Still life.*—Study the perspective of cylindrical objects. Draw common objects singly and in groups. Collect pieces of interesting pottery to draw. Secure good compositions. Finish in flat tones of gray or use a simple color scheme.

*Design.*—Teach balance and rhythm. Make designs within rectangles, using straight and curved lines. Make all over patterns, using straight and curved lines. Make patterns, using abstract spots. Work from nature to the abstract. Plan designs for the clock cases and boxes made in theloyd rooms. Plan designs for table covers and bags made in the sewing classes.

*Color.*—Teach complementary colors. Find examples in fruit, flowers, landscapes, textiles, and pictures.

## SEVENTH YEAR.

*Nature work.*—Continue the work of the preceding grades. Express in line, dark and light and color.

*Still life and perspective.*—Study of cylindrical and rectangular objects. Draw books and boxes at different elevations and angles. Discuss pictures of streets, houses, and interiors. Formulate simple rules and definitions. Draw simple groups of common objects. Apply grayed harmonies of color using water color and crayon.

*Color.*—Use contrasting and analogous harmonies and monochromatic scales. Study color schemes in nature, in textiles, and in the colored prints by Howard Pyle, Jules Guerin, Maxfield Parrish, Jessie Wilcox Smith, and other good magazine illustrators. Compare reserved color schemes with those in full intensity.

*Landscape.*—Exercises in regular and irregular spacing. Collect pictures illustrating repetition, subordination, and balance. Apply exercises in space division to simple landscapes. Select compositions from landscapes, using the finder. Work in line, dark and light and color. Relate the landscape work to the literature.

*Design.*—Arrangements of abstract lines and spots. Designs based on flowers, pods, leaves. These designs are applied by means of stencils and wood blocks to book covers, cushion covers, curtains, needle books, bags, and other articles of use in the school and the home.

## EIGHTH YEAR.

The outline is similar to that of the seventh year. ▲

SAN FRANCISCO, CAL.<sup>1</sup>

## Course of Study in Drawing.

The course of study in drawing constitutes the minimum quantity of work required, and is planned more in accordance with what the grade teacher is prepared to follow successfully, than with the pupils of a particular grade are able to accomplish.

The course is arranged so as to keep the thought and attention of the pupils concentrated on all the topics of pictorial representation during one term and on all the topics related to design during the other term of the year. And in all grades the pupils are kept on a particular topic until the principles involved are understood. We avoid as far as possible any disposition to make drawings which are forced results, and never vary the character of the lessons from time to time by having a lesson in illustration follow a lesson in plant drawing, which in turn is followed by another in applied design. Each topic consists of a sequence of exercises which progress from very simple beginnings to a finished product, and the grade teacher is expected to teach the drawing as he teaches other subjects, by being thorough with each exercise. Our aim is to teach principles, train pupils to work out definite problems of the subject, and express themselves graphically, utilizing their own ability independently.

## PICTORIAL REPRESENTATION.

Spontaneous story-telling—Grades I, II, III.

Drawing of plant life—All grades.

Drawing of still life:

Grade V. Fruits and vegetables.

Grade VI. Single objects based on cylindrical perspective.

Grade VII. Single objects based on angular perspective.

Grade VIII. Groups of objects including the models used in Grades V, VI, and VII.

The drawing of still life includes the study of perspective and light and shade.

<sup>1</sup> Katherine M. Bell, supervisor.

## DESIGN.

In each grade above the second a particular problem of abstract design, embodying definite principles, is taught and subsequently applied to some practical use. As the course of instruction does not contain any so-called mechanical drawing, every opportunity is embraced to utilize mechanical processes and devices in the exercises in design. The compass and ruler are in constant use and every possible attention is given to measuring for accuracy.

## Problems for the Grades.

*Grade III.*—Repetition of simple straight line shapes in borders adaptable to rug weaving and cross-stitch embroidery.

*Grade IV.*—Paralleling geometric figures; banding different shapes and adding corners and center spots as decorative motives, adaptable to the decoration of cardboard objects made during the hand work periods.

*Grade V.*—Radial symmetry in squares, using straight line arrangements suitable for tiles, and subsequently repeated in borders and surface patterns, which in turn are made to decorate book covers and portfolios.

*Grade VI.*—Radial symmetry in circles; using straight and curved lines, producing patterns which may be applied to such circular objects as mats, candle shades, plates, etc.

*Grade VII.*—Bilateral symmetry in units of design, expressing principles of radiation and graduation, which are to be used as repeats in borders and surface patterns, adaptable as decoration for textiles, book covers, portfolios, etc.

*Grade VIII.*—Interpretations of natural forms, mainly floral, suitable as units of design for repeats in all kinds of patterns.

In addition to the above, different topics of both pictorial representation and design are assigned to teachers, or even to whole schools, where conditions are conducive to unusual interest and exceptional effort. These topics include pose drawing, landscape composition, floral composition in notan, artistic lettering and design for basketry, rugs, pottery, and bookbinding, using natural geometric and symbolic motives for decoration.

## HIGH-SCHOOL COURSES AND OUTLINES.

Three factors determine largely the character of work outlined in high-school courses: The training and qualifications of the teacher, the school equipment and classroom facilities, and the locality in which the school is situated. Lack of knowledge or art-school influences may induce a teacher to confine the work to one narrow field; poor and inadequate equipment may compel adherence to a particular phase of the subject; or an industrial, residential, or other neighborhood may suggest one or more lines of direct application within limited fields.

The wiser teacher, taking all things into consideration, notes these factors in outlining the school courses, and plans accordingly. The fact that the work may be elective, or otherwise, must also be considered.

In addition, the teacher, having drawing only to look after, seldom plans more than a general outline. The courses which follow, therefore, are much more brief than the detailed weekly programs of the grades. They are, however, typical of the more advanced attitude toward secondary school work.



The following cities are represented by high-school courses: New York, N. Y.; Schenectady, N. Y.; Newark, N. J.; Port Deposit, Md.; St. Louis, Mo.; Los Angeles, Cal.

### NEW YORK, N. Y.

#### Syllabus for High Schools. Freehand Drawing.

##### FIRST YEAR.

##### REQUIRED WORK.

##### Design.

*Subjects studied.*—(1) Simple lettering in its application to cover, page, poster, or card arrangements without decoration.

(2) Principles of decorative design in two dimensions and surface enrichment for patterns related to special "center" to be developed.

*Methods of study.*—Lettering: The ability to letter with precision, clearness, and ease should be acquired by every pupil. A plain, well-formed alphabet of Gothic capitals should be learned.

Fine card or page arrangements depend upon the happy proportion of margins, page, and lettered area. This last area must again be separated into well-related parts for possible title, initials, decorations, and text.

Decorative design: Design is first an arrangement of masses. These masses may be further subdivided. The forms and relationships of these masses and their parts and the several kinds and directions of lines should be studied and experimented with. By such experiments abstract units and other decorative forms may be obtained. Masses, lines, or units in balanced or rhythmic relations produce borders, inclosed decorations, or continuous surface pattern.

Simple conventional forms of bud, flower, leaf, or fruit should follow the use of abstract units in more advanced problems of a like nature.

*Required sheets.*—Eight carefully-finished designs, well mounted and lettered with appropriate distinguishing titles, should be made during the year by every pupil. These mounted sheets should measure, complete, about 10 by 14 inches.

These eight required sheets are left, as to their subject matter and general treatment, to the guidance of the teacher. They should illustrate adequately the foregoing required instructions, however, and be ready for inspection when desired. Such work is to be selected from the regular class work of each student for the year, and under no circumstances is it to be produced under forced or special conditions or worked up and recopied from hasty sketches for exhibition purposes. An honest estimate of each pupil's ability as shown in his regular finished work is what is desired.

*Preservation of drawings.*—Each pupil should preserve his drawings individually in a folder or portfolio. He should be led to take pride in the completeness and excellence of the set. Each set should be neatly lettered with the student's name, grade, plate number, and date.

##### SECOND YEAR.

##### REQUIRED WORK.

##### Representation.

*Objects to be studied.*—(1) Cylinder, cone, sphere, their parts or combinations. Common objects of allied shapes showing foreshortened circles, such as jars, vessels, vases, barrels, pails, dishes, utensils, etc., including such important details as lips, spouts, handles, and feet.

Dr. James Parson Haney, director.

(2) Cube, prisms, pyramids, their parts or combinations. Common objects of allied shapes, showing foreshortened straight-edged forms, such as books, boxes, tables, chairs, cabinets, etc.

*Methods of study.*—Drawings are to be made from actual objects in various positions and at different levels, both below and above the eye.

Study of single objects should precede groups. Drawings should be made in properly accented outline. Precision of form, correct perspective, and construction should be diligently studied and preserved.

Memory drawings of the foregoing objects in the various positions should be constantly made and ability developed to draw them from description or dictation.

*Required sheets.*—Twelve well-finished sheets, measuring about 10 by 14 inches, are expected from each pupil at the end of the school year for inspection, together with such practice or other sheets as may be related to the same. These sheets are not to be especially prepared for this purpose, nor redrawn and elaborated under forced or unusual conditions from incomplete or unsatisfactory sketches or material. They are to be selected from a larger assortment of regular-year's work of the student, to serve as a standard of fair judgment of his ability.

*Materials.*—Pencil, crayon, or charcoal.

*Preservation of drawings.*—As stated under design, first year.

### THIRD AND FOURTH YEARS.

#### GENERAL RECOMMENDATIONS.

The student will, at the beginning of the third year, elect either design or representation. The subject elected will be pursued throughout both years.

#### REQUIRED WORK.

##### Design.

*Objects studied.*—The general field of design touched upon in the first year should be intensively developed during the third and fourth years. The work should include:

(1) Designs for objects of three dimensions where these may be desirable in connection with the "center" to be developed.

(2) Surface enrichment of a more advanced type than previously studied.

(3) Advanced lettering and arrangements for books and allied subjects.

*Methods of study.*—Constructive design: The principles of design as related to construction are to be diligently studied and applied in the constantly enlarging circle of possibilities that opens to the student. The effect of technical methods, of structure, and of different materials on design, as well as the necessity of the use or purpose of the object controlling its form, must never be lost sight of. Examples of the best historic and modern design should be shown in prints or other reproductions, and wherever possible in actual objects. Articles of distinct interest connected with the student's life should form the subject matter of the course, and the products should, so far as possible, have a value to the student outside the mere study put upon it.

Decorative design: Design for the flat or for surface enrichment should proceed during this course with the production of patterns for use in leather, textiles, sheet metal, wood, etc., in their simple forms. The best precedents in each of these crafts should be adhered to by the teacher, and precision of workmanship, distinguished by simple motives executed with great care, should be encouraged instead of attempts at marked originality of elaboration.

The importance and prevalence of conventionalized forms in design should be taught and the subject developed and practiced in simple forms in the above problems. The "center" chosen may be different from that followed in the first year.

**Lettering:** In the field of lettering the development of good alphabets should form a basis for advanced problems for covers, pages, posters, cards, announcements, book-plates, etc. Such work also should combine with preceding decorative problems in a variety of ways.

**Required sheets.**—The finished work of these two years should include eight sheets as a minimum requirement.

Treatment of home interiors furnishes a variety of problems, first, in schemes of spacing and color for the inclosing surfaces of the room; second, for the furniture; third, for the hangings and smaller useful articles.

#### *Representation.*

**Objects studied.**—Advanced representation in the third and fourth years should cover the subjects of still life; nature forms, including fruit, flowers, vegetables; botanical and biological specimens; casts of historic ornament or the antique. The mediums employed may include pencil, charcoal, crayon, water color, or ink.

**Methods of study.**—The study of advanced representation should be pursued with a greater appreciation of and more earnest effort to excel in careful draftsmanship, truth of values, correct rendering of color, and, in general, a more mature and sympathetic treatment of the subjects than was possible in the previous course. Examples of masterly drawing by artists or students, in originals or reproduction, should constantly be in view as incentives to high technical efforts.

**Required sheets.**—The two years' work in this subject must produce eight large, well executed sheets as a minimum requirement.

**Preservation of drawings.**—Drawings in either of the courses of the third or fourth year should be preserved, mounted, and lettered generally as specified under first year's work. The advanced nature of the later work, however, should be evidenced in the greater care and refinement of its final presentation.

#### ETHEL CULTURE SCHOOL, N. Y.

##### The Course of Study in Art.

##### HIGH SCHOOL.

**Courses offered.**—All the art work in the high school is elective, and three separate courses are offered, namely, the regular art course, the series of illustrated art talks described under the heading "Art appreciation," and the college preparatory course in freehand drawing. There is therefore provision for meeting the various needs which depend upon the temperaments, abilities, and plans of the pupils for the future.

**Purpose of the regular art course.**—The regular art courses provide for those who are interested in the actual practice of drawing, painting, modeling, and design in its various forms, whether or not the pupil hopes to carry on these studies afterwards. For the few who will continue their studies in the art schools the work serves to lay correct foundations. For the others to whom art will be but an avocation, or even a matter of general interest, the course aims to give high artistic ideals, the ability to observe carefully and to look for beauty, and an understanding of craftsmanlike methods of work. There is no way so sure of acquiring the power to appreciate the best in art as through carefully guided practice combined with the study of fine examples. Through even a limited practice of the artist's craft an understanding of his language is acquired and some insight of its possibilities and limitations. Thus is bred an interest in and admiration for fine accomplishments that no mere looking at art objects can bring out.

**Purpose of art appreciation course.—For whom intended.**—The course in art appreciation is open to all high-school pupils. For those taking the regular art courses it

Planned by James Hall

is intended to supplement the technical study. It also aims as far as is possible to provide for those pupils who are not sufficiently interested in the craftsmanship of the subject to elect the regular art courses, but who wish to know about works of art and to appreciate them.

*Course in photography.*—A course in photography, although independent of the art department, offers another avenue of approach to the study of art, including as it does, constant consideration of the fundamental principles of artistic composition and good craftsmanship.

## REGULAR ART COURSE.

This course offers three years' work.

## ALPHA.

*The course.*—The subject for the year's work is representation or the recording of the appearance of objects in pictorial form. The course includes the study of freehand perspective, some figure and landscape sketching, and the drawing of flowers. Throughout stress is laid upon composition.

*Still life.*—The work begins with drawing in pencil outline from the object of the simplest forms of still life, singly and grouped. Such subjects are taken as the various fruits, interesting dishes and vases, books and other common rectilinear objects. The purpose of beginning in this way is first to review thoroughly the pupils' knowledge of object drawing, and, second, to lay a new emphasis upon technical beauty and the artistic expression by line of solidity and texture.

*Composition.*—Following the outline drawing the study of dark and light composition within rectangular spaces is taken up. As an introduction to this study the pupils make outline tracings from a variety of fine examples of painting as shown in monochrome reproduction. These tracings are then converted into two values and then three value compositions. The pupils in this way learn how to translate or simplify the pictures of many gradations or values so as to retain the character and effect of the principal masses, employing either dark and light alone or introducing a middle value with the light and dark.

The aim of this exercise is to lead to an appreciation of the beauty that results from an artist's arrangement of his main masses or his "spotting" of a composition. The pupils then apply this knowledge by efforts in making pleasing arrangements of value from their original still-life drawings. In such work they are left free to place the values entirely for the best effects of composition, independent of the facts of color value in the actual objects. No light and shade is attempted, the different values being used to give the effect of flat contrasts of various colors. Principles of composition, such as unity through principality, balance, harmony, and rhythmic variety, are incidentally discussed.

*Figure sketching.*—Sketching the figure in outline and in silhouette occupies a series of lessons, emphasis being laid on the action and general proportions of the mass, and the making of a picture by composing one or two figures within a rectangle. The pupils take turns in posing for the class, and occasionally a pupil from a lower grade poses in festival costume. In connection with this work, excellent examples of figure drawing are shown, discussed, and sometimes copied.

*Landscape.*—A few lessons in landscape are given either in the fall or spring, beginning with the study, simplification, and rearrangement of such compositions as those of Turner, Corot, Alfred East, and other masters. One or two sketching excursions to Central Park follow where studies are made which are afterwards used in original compositions.

*Flower drawing.*—Lastly come some work from sprays of leaves and from flowers, which give special opportunity for the study of grace and beauty of line as seen in the

poses or gestures of branches and stems and in the turns of leaves and petals. The perspective principles studied at the beginning of the course in the more rigid forms of still life are applied now to the subtler forms of nature. Flower compositions are finally made within spaces, first in values and then in color. Here definite notes of related or of complementary colors are used.

*Modification of the course.*—While this is the outline of work generally adhered to, modifications are made in the plan when there are good reasons for doing so. For example, at the time of preparing for a festival, the class as a whole may work out some large scheme of decoration (see general statement), or at Christmas time one or more lessons are usually devoted to the making of cards of greeting.

#### BETA.

*The course.*—The subject of the year's work is design, with practice of some of the simpler crafts, including pottery and block printing or stenciling. Through practical problems and a minimum of abstract exercises the pupils gain knowledge of planning borders, designing for inclosed areas, and the making of surface patterns. Incidentally the principles of design, balance, rhythm and harmony of lines, of values, and of color and the considerations of variety and contrast are discussed.

*Pottery.*—Important in the course is the study of pottery. Designing, building, and decorating are the three parts of the problem which are undertaken by the pupils, but glazing and firing are considered, although not at present done in the school. The making of pottery gives opportunity for the study of pure form in three dimensions in a medium most responsive to the touch of the fingers. The importance of working in harmony with materials, of so using them as to bring out their greatest beauty, a fundamental principle of all design, can be most forcibly taught in the craft of pottery. Here the pupils must learn that in good craftsmanship the aim is not to conceal the plasticity of the clay or all traces of the fingers upon it but rather that a characteristic handling is an important artistic factor in the result desired. Other fundamental considerations of design which also are met fairly here are the importance of fitting a form to its use, the meaning of beauty of proportion and grace of outline, and the principle of introducing decoration only when and where it serves to accent form. Typical problems of the course are a cylindrical vase with incised decoration, a teapot, sugar bowl, and cream pitcher undecorated, a bowl with low relief decoration, and various vase and dish forms designed for special purposes.

*Household design.*—A problem such as designing and printing from a wood block a surface pattern for a curtain, or working out a stencil design for a sofa cushion may serve as a point of departure leading to the consideration of furnishing a room harmoniously. Informal discussions of household art with illustrations of well-furnished modern rooms are an important factor in the course. In this connection a rug design is sometimes worked out, each pupil choosing his own symbolic motif, and adapting it to the needs of a rug suitable for his own room. Though these designs can not be woven in school, an intelligent interest in rugs is aroused in the pupils so that examples of the finest oriental rugs exhibited in the city take on new meaning for them.

*Color.*—The study of color includes a review of color qualities, hue, value, and chroma, with the making of simple scales. The pupils then experiment in combining colors in related and complementary groups. Examples of color harmonies taken from various sources—pottery, Japanese prints, textiles, butterflies, birds, etc.—serve as suggestions.

*Design to be used with type.*—Some attention is given to designing for head and foot pieces, initials, etc., suitable for use with a type page; for example, the school paper. Lettering and its place in design are taken up in the problem of a design for a program cover to be reproduced and used by the school.

## GAMMA.

The work of this class varies considerably from year to year, according to the special needs of the pupils. Both design and representation are included, the work of the two preceding years in these subjects being carried further.

*Representation.*—One or more of the following topics is taught: Still life in light and shade, pencil and charcoal. Still life in water color. Figure drawing from the cast and copying from studies by the masters. Landscape sketching in water color.

*Design.*—One or more of the following topics is taught: Pottery, more advanced problems. Penwork and the elements of illumination, including the making of ornamental initials in color. Stenciling.

## ART APPRECIATION.

*The course.*—This course consists of a series of weekly talks illustrated by stereopticon slides and otherwise, and a certain amount of required reading (How to Study Pictures, by Charles H. Caffin).

*Art as a language.*—Art, especially painting, is considered as a language for the expression of ideas and emotions, and comparisons are drawn between the painter's art and that of the musician and of the writer. After defining the field of painting, the terms of the painter's language, line, dark and light, and color are discussed as to their possibilities of expressing visual ideas and of suggesting emotions. Such topics as drawing, values, light and shade, perspective, texture, technique, and composition are taken up.

*Survey of historical schools.*—After these preliminary considerations comes a general survey of the history of painting, showing broadly its development from the time of Cimabue to the present. Only the most important painters are studied, and these by a series of comparisons which bring out sharply not only the individual characteristics of their work, but also lead to an understanding of the ideals of the period and of the country in which they lived. For example, the painters of the Renaissance show clearly, both in their subjects and in the treatment of their pictures, the newly acquired interest in the classics, the growth of scientific knowledge, and the increasing value set upon individuality which was beginning to permeate the life of the period. Thus the course may throw a side light upon other studies, as history and literature.

*Result expected.*—But the chief result aimed for is a broadened view of the meaning of art, a serious desire to look at each picture as far as possible from the standpoint of the painter, and some power to respond to the appeal of form and color. With these as habits of mind, a pupil has laid the foundation of ever-growing ideas of beauty. He at least will realize that he should carefully consider a picture before deciding whether he likes or dislikes it, and through contact with the serious pictorial expressions of the great artists his own personality can not fail to be enriched and his sympathies widened and deepened. For it is literally true that one who really sees a masterpiece of painting comes to know the man who painted it in no less degree than he may know a writer through his books.

*Architectural talks.*—The course ends with two or three talks on architectural composition as shown in examples of the great styles of architecture: Egyptian, Greek, Roman, Gothic, and Renaissance. Only the more obvious distinguishing characteristics of these styles can be considered in a few typical examples.

*Museum trips.*—One or more visits to the Metropolitan Museum are made with the class in order to point out some of the more important examples of original work by the painters that have been studied.

## COLLEGE PREPARATORY COURSE.

This is a one-year's course which covers the ground prescribed by the college entrance requirements in which free-hand drawing may count as one unit. The year's work includes the making of at least 20 finished drawings on a uniform size of paper. The course comprises drawing geometrical figures, etc., from dictation; sketching from the object geometrical solids, common utensils, and furniture, details of machinery, etc.; sketching from copy, with enlargement or reduction, machine parts, and details of historical ornament.

The work is largely in pencil outline, although some light and shade may be included. Correctness of proportion, accuracy of parts, and right method of procedure in making a drawing are insisted upon.

SCHENECTADY, N. Y.<sup>1</sup>

## Course in Free-hand and Mechanical Drawing.

## FREE-HAND DRAWING.

The course in free-hand drawing is outlined to meet the regents' requirements, design being taught during the first and third year and representation during the second and fourth. As only two periods a week are required during each year it is possible and desirable to combine the first and second and the third and fourth years and to fill the remaining period with work in art history. In this way the pupil has five periods of drawing a week and completes the course at the end of his second year, after which special classes are offered in advanced work in representation and design.

Pupils who are likely to need or desire drawing before leaving the high school are urged to enter the class their first year, since courses are arranged at that time and it will be less likely to interfere with other subjects than later.

With the opening of the new high school there is planned a special fine arts course for those pupils who have ability and are not intending to go to college or who plan to enter an art school at the end of their high-school course. It would be well for pupils entering high school in September, 1912, to bear this in mind.

It is hoped that the work in drawing will give the pupil another means of expression, help him to see, and assist in teaching him self-control, carefulness, and patience. He should also learn something of the masterpieces of architecture, sculpture, and painting, and of the men whose genius has influenced the world.

## FIRST YEAR.

(Two periods a week.)

*Design.*

*Leading principles.*—Suitability, balance, rhythm, and harmony as developed in borders and surface repeats, book covers, tiles, etc. Arrangements of straight and curved lines (geometric and abstract forms). Use of squared paper in design. Application of units to inclosing forms. Rhythm of tone, use of three and four notes.

*Constructive design.*—Fitness to purpose in material and form of simple objects designed by class, with decoration and perspective sketches of same.

*Lettering.*—Single line letters are used and also the Roman text, with application to book covers, portfolios, etc.

<sup>1</sup> Caroline Budd, free-hand drawing. Frank Hulse, mechanical drawing.

## SECOND YEAR.

(Two periods a week.)

*Representation.*

*Perspective principles.*—Theory and practice. Parallel and angular perspective. Types forms and simple objects resembling them, drawn above and below the eye, alone or in simple groups, in accented outline, flat tones showing values and in simple light and shade. Drawings from furniture having straight lines, Memory drawings of objects made from description.

*Nature forms.*—Botanical and biological drawings made from specimens and from memory.

*Landscape.*—Copy of landscape by Woodbury. Sketches from school windows. Landscape in flat tone used as illustration.

*Pose.*—Sketching from pose. Use of squared paper to enlarge figure. Material used: Pencil, crayon, and charcoal.

*History of art.*

(One period a week for those pupils having second-year drawing.)

*Egypt.*—The Pyramids and Sphinx. The Tombs of Beni-Hassan. Temples of Edfou, Karnac, and Luxor. Colossi of Memnon.

*Greek art.*—Olympic games and influence on Greek sculpture. Architecture, Akropolis, Parthenon, Erechtheum Nike Apteros. Drawing of Greek columns and details of ornament.

*Roman.*—Architecture, sculpture, and painting.

*Saracenic.*—Architecture and decoration.

*Byzantine and Romanesque.*—Architecture, sculpture, and painting.

*Gothic.*—Architecture, sculpture, and painting.

*Cathedral towns of England and France.*

## THIRD YEAR.

(Two periods a week.)

*Design.*

*Decorative design.*—Adaptation of plant forms to purposes of design, as bilateral of balanced unites, in borders and surface repeats, showing a variety of geometric plans, relating by use of lines. Plant form adapted to inclosing forms. Space breaking, subordination to line, to center, to size. Composition: Plant, landscape, and figure. Rhythm of tone and color harmony. Study of Japanese prints and oriental rugs.

*Constructive design.*—Objects having suitable handles. Simple pieces of furniture. Interiors. Simple plan for a house or bungalow.

*Lettering.*—Use of Roman text, also original lettering to suit purposes of design. Study of medieval manuscripts.

Materials used in work: Pencil, charcoal, water color, ink.

Upon completion of the third-year work in design, the pupil will be admitted to a class in applied design (two periods a week), where he will learn through experiment the different requirements of various mediums, since all work done must be from his own design, and may be as follows:

*Fabrics.*—Stenciling, block printing, and needlework for curtains, sofa cushions, table covers, apparel, etc.

*Leather.*—Stenciled, cut, tooled, as in cardcase, book cover, bag, blotter corners, portfolio, etc.



*Metal*.—Hammered, etched, pierced, as in tray, candle shade, lantern, watch fob, pendant, buckle, hatpin, etc.

*Wood*.—Stained or carved for boxes, clock frames, bookracks, etc.

#### FOURTH PERIOD.

(Two periods a week.)

#### *Répresentation.*

*Perspective principles*.—Parallel, angular, and oblique perspective. Object drawing in full values. Furniture and interiors. Memory drawing from dictation.

*Plant study*.—Decorative composition. Drawing in full values.

*Landscape*.—Tone drawing from masterpieces. Out of door study. Study of principles of line and color composition in Japanese prints.

*Pose*.—Figure composition from draped model.

*Architectural detail*.

*Historic ornament*.—Materials used: Pencil, charcoal, crayon, water color, and ink.

Upon completion of this course advanced work in representation is offered, and includes drawing from still life and the cast, landscape and figure composition and illustration in tone and color. Design and representation are united in the drawing of posters, bookplates, etc., and sketches are made from nature and the draped model.

### HISTORY OF PAINTING.

#### FIRST TERM.

(One period a week for the pupils having fourth-year drawing.)

1. Egyptian wall decorations, mummy wrappings, and parchments.
2. Greek vase painting: Prehistoric, archaic, black figured and red figured ware.
3. Italian: Giotto, Botticelli, Raphael, Michaelangelo, and Leonardo da Vinci.
4. French: David, Delacroix, the Barbizon group, Millet, and Corot.
5. Dutch: Van Eyck, Memling, Rubens, and Rembrandt.
6. Spanish: Velasquez and Murillo.
7. English: Sir Joshua Reynolds, Gainsborough, pre-Raphaelite school, Turner, and Ruskin.
8. Modern portrait painters: Sargent, Whistler, Cecilia Beaux, Alexander, Watts, Reynolds, Gainsborough, Carolus Duran. Compare with early portrait painters: Rembrandt, Van Dyke, Holbein, Velasquez, Raphael.
9. Landscape painting to-day: Enneking, Woodbury, Davis, Kaula, Lucy Conant, Monef, Whistler, and others. Early landscape painting: Claude Lorraine, Ruisdael, Rembrandt, Titian, Turner.
10. Mural painting: Boston library, Congressional Library, Appellate Court, New York. Early mural decorations, Van Eyck, Giotto, Michaelangelo.

### MECHANICAL DRAWING.

The mechanical drawing courses are five in number and cover the rudiments of mechanical and architectural drawing. These courses are designed to cover the principal conventions and the most important mechanical principles and architectural details. As far as possible, commercial drawing-room practice will take the place of ornate rendering. The student, in order to satisfactorily complete his course, must give evidence of the understanding of what he does, as well as correct technique in rendering his work. Also he must both give the required time and complete the work assigned for any course in order to receive credit for such course.

The courses are as follows, and may be begun at the opening of the school year, either in September or in February:

*Course I.* First year, three periods per week, 114 hours during the year. Designed to include the following:

- (a) A system of good lettering.
- (b) The care and use of instruments.
- (c) Simple geometric constructions.
- (d) The ordinary conventions of mechanical drawing.
- (e) The working drawing, with knowledge of its purpose and use.
- (f) The development of the surfaces of the simple type forms and discussions as to their application.
- (g) Simple problems in interesting type forms.

*Course II.* Second year, three periods per week, 114 hours during the year. This course will continue the work of Course I, as follows:

- (a) The theory of projection, with special emphasis upon orthographic projection and the angles of projection.
- (b) Problems involving the projection of lines and of type forms.
- (c) The application of the above problems to the intersection of solids and the development of the surfaces of such intersecting solids, with discussions of application to heating and ventilating, and sheet metal work.
- (d) The development of oblique forms, both cylindrical and conical.
- (e) Screw heads, tapped holes, and bolts, with correct proportions and applications.
- (f) The drawing of machine parts from models.

*Course III.* Third year, two periods per week, 76 hours during the year, continues the work of Course II and includes:

- (a) Such geometric constructions as refer to the construction of mechanical devices for transmitting or changing motion.
- (b) The construction of spur gearing using the involute system.
- (c) The construction of simple cams and the study of their uses.
- (d) The slide valve diagram.
- (e) Special study of mechanical movements and the use of handbooks.

*Course IV.* Fourth year, two periods per week, 76 hours during the year, includes the extension of Course III to more complicated problems and includes:

- (a) Problems dependent upon the prismatoid formula.
- (b) The use of the force polygon in mechanics.
- (c) Problems of mechanics.
- (d) Designs of truss, retaining wall, foundations or dam.

*Course V.* Fourth year, two periods per week, 76 hours during the year, is designed specially for students who have already taken Courses I, II, and III, and who wish some architectural work. It includes:

- (a) Study of the Roman, Tuscan, Doric, Ionic, and Corinthian orders.
- (b) Forms of moldings, arches, doors, windows, etc.
- (c) Details of construction—windows, doors, stairs, framing, and cornice.
- (d) Interpretation and analysis of aesthetic principles in architecture and readings and study of sketches by famous artists.
- (e) Study of the arrangement, form, and proportions of rooms as to utility, convenience, location, lighting, etc. Also the study of openings and porches, of general proportions, and the study of materials.
- (f) The plan, front elevation, side elevation, and sectional elevation of a building.
- (g) Such special reading and study as is necessary to a thorough understanding of the subjects treated.

#### NEWARK, N. J.

For the most part the work in Newark is still elective, but each year the classes increase in number and in size. Ten years ago there was but one high school in Newark, with two instructors in the art department. There are now three buildings and a fourth anticipated. The growth of the art department has been proportionate and demands to-day eight instructors, with a ninth needed. The high-school work in

Eva E. Struble, supervisor.

art is now organized under two heads, commercial and domestic, as tabulated:  
Commercial:

Composition.	} Advertising—poster, street-car, magazine. Window display. Wood—furniture, light craft. Brass, silver—jewelry, light craft. Leather—desk implements, covers, mats, etc.
Design.	
Perspective.	
Color.	

Domestic:

Composition.	} Home—interior decoration, house planning Costume—gowns, scarfs, etc. Design—textiles, leather, etc.
Design.	
Perspective.	
Color.	

#### PORT DEPOSIT, MD.<sup>1</sup>

The work is compulsory in the first and second forms and elective thereafter. Each student has 40 minutes twice a week, but advanced students often devote much more time to this branch.

The first form takes up the perspective of the circle in September, studying theory and practice from flat disks and progressing to still life studies, where the circle in various positions and relations is part of a problem, including perspective, value, and composition. An occasional lesson in plant form varies the work. December is devoted to Christmas work, where the student wishes to do so. In January they take up the study of the figure from the pose, working very simply for action, proportion, and character of line. In the spring we devote ourselves to trees and simple landscape dealing with perspective, linear and aerial, reduced to their simplest forms.

The second form begins the school year with the perspective of the rectangle, blocks, books, shut and open, boxes, an open door and the appearance and construction of a house. They also take up life work in January, carrying it on to more difficult phases, but keeping the handling more strong and simple. When the spring comes, early in Maryland, they work out of doors on pleasant days, drawing directly from buildings and studying the bare trees. The permission to work out of doors is conditional on the steadiness of application and satisfactoriness of the results. Considerable attention is given to lettering in both forms. The work in design is done in connection with the department of manual training.

In the third form, work becomes elective, and every effort is made to find out the lines on which each student can develop most effectually. Some very good work has been done in life, landscape, and in color, and drawings of interiors are to be developed another year.

We bear in mind in the plan of work such training as will be needed, or useful in the career of an engineer, the detail work required by doctors and scientists in illustrating theories and written matter, the needs of a student who may want to enter an art school, and the training useful to one who shows a taste for newspaper or commercial work. The study of composition in one form or another is never lost sight of, and the effort is made to so arrange the problems offered that each student will be taxed to the extent of his ability, but no one subjected to the discouragement of a demand beyond his best powers.

#### ST. LOUIS, MO.<sup>2</sup>

#### HIGH SCHOOL COURSE OF STUDY—DRAWING.

#### GENERAL NOTES.

The outline is not arranged according to the order in which each topic is to be presented, but according to the amount of time to be given.

<sup>1</sup> E. W. Coleman, instructor.

<sup>2</sup> (Mrs.) M. E. Riley, supervisor.

Work from plants and out-of-door study must be arranged according to weather, material that can be obtained, etc., and should be done whenever all conditions are favorable.

Throughout the course, growth and development—not finished work—should be the aim.

The time allotted for each topic should be given to it.

The time allotted includes all preliminary work—that is, all practice work done by the pupils and the development of the lesson by the teacher.

The amount of work done in the allotted time by the average pupil should be the measure of the amount of work to be accomplished.

Pupils should be marked not only upon the quality of work, but also upon the quantity done.

#### SUBJECTS TO BE TAUGHT.

[General course for all the high schools.]

*Object work.*—All still-life studies.

*Plant studies.*

*Life work.*—Human figure.

*Landscape.*—Out of doors, including buildings, roof studies, street scenes, landscapes, etc.

*Design.*—Both decorative and constructive, including the actual making of things.

*Collections.*—The collection of art pottery, draperies, books, casts showing ornaments, art journals, alphabets (one set for each teacher), initial letters, examples of designs, Japanese books, prints, reproductions, reproductions of pencil and ink sketches and all material belonging to the school should be used constantly in lessons and should be where the pupils can have access to them and make use of them.

*Design.*—Throughout the four years' course the aim should be to give the pupils an understanding of the underlying principles of good design, and the ability to enjoy and appreciate good design when they see it.

#### METHODS OF WORK.

*Pencil and charcoal.*—More time should be given to the pencil work than to charcoal.

*Landscape.*—In addition to the work in landscape using water color alone, very interesting effects can be obtained by making studies using charcoal and flat tones of color over it.

*Water color.*—All water color, except design, is to be done on wet paper. No opaque color should be used in representation (still life, plant studies, landscape, etc.) on white paper.

Working upon the same study or exercises along any of the lines of work planned should be continued only long enough for each pupil to have made a sufficient effort to carry out the idea of the exercise.

Talented pupils and those that work very rapidly should fill the time by doing more of the same sort of work. In sketching, studies may be done from different points of view.

Each pupil should write his name, class, and date on all papers and pieces of work when completed.

#### MATERIAL.

*Helps in lessons and designs.*—Japanese books, textiles, illustration of surface, borders, units (rosettes, bilaterals, radiating designs, single complete units, elements and combinations) and spotting should be collected and used in lessons in design.

*Plant studies.*—Plant studies should be kept fresh and be arranged artistically. Glasses of wet sand will keep the plants fresh long enough to work from.

The arranging of the plants should be part of the pupils' training as well as making sketches and studies from them.

*Shadow boxes.*—All studies requiring backgrounds, and involving the study of light and shade, should be arranged in shadow boxes.

*Models—Human figure.*—In the latter lessons a great deal of interest will be added by interesting costuming in the study of the human figure.

*Skill life.*—Special attention should be given, in the composition of groups of still life, to color combinations, both in regard to the objects themselves, and also to the backgrounds against which they are arranged.

The form, size, texture and arrangement must be considered in relation to one another.

Studies must be placed both above the eyes and below the eyes, much greater proportion of time being given to the studies placed below the eyes.

*First half of the first year.*

[Allowing five weeks for incidental interruptions.]

	Weeks.
1. Design—Leading principles.....	4
2. Plant study—Pencil.....	3
3. Object study—Pencil.....	4
4. Out-of-door study.....	1
5. Life—Human figure.....	2
6. Domestic art.....	1

*Second half of the first year.*

[Allowing five weeks for incidental interruptions.]

1. Design—Block print.....	4
2. Plant study—Charcoal (full values).....	3
3. Object study—Charcoal (full values).....	4
4. Out-of-door study.....	1
5. Life—Human figure.....	2
6. Domestic art.....	1

*First half of the second year.*

[Allowing five weeks for incidental interruptions.]

1. Clay modeling.....	4
2. Plant study—Water color.....	3
3. Object study—Charcoal (full values).....	4
4. Out-of-door study.....	1
5. Life—Human figure.....	2
6. Domestic art.....	1

*Second half of the second year.*

[Allowing five weeks for incidental interruptions.]

1. Clay modeling.....	5
2. Plant study—Water color (full values).....	3
3. Object study—Water color (full values).....	3
4. Out-of-door study.....	1
5. Life—Human figure.....	2
6. Domestic art.....	1

*First half of the third year.*

[Allowing five weeks for incidental interruptions.]

Art history—One single period a week.....	15
All other subjects counted in weeks of four periods each.....	6
1. Design—Leather.....	3
2. Plant study—Water color (full values).....	4
3. Object study—Water color (full values).....	1
4. Out-of-door study.....	2
5. Life—Human figure.....	2

*Second half of the third year.*

[Allowing five weeks for incidental interruptions.]

Art history—One single period a week.....	15
All other subjects counted in weeks of four periods each.....	6
1. Design—Leather book.....	2
2. Plant study—Water color (full values).....	4
3. Object study—Water color (full values).....	1
4. Out-of-door study.....	2
5. Life—Human figure.....	2

*First half of the fourth year.*

[Allowing five weeks for incidental interruptions.]

	Weeks.
Art history—One single period a week.....	15
All other subjects counted in weeks of four periods each.....	
1. Metal work—Bowl.....	5
2. Plant study—Water color (full values).....	3
3. Object study—Water color (full values).....	3
4. Out-of-door study—Charcoal with water color.....	2
5. Life—Human figure.....	2

*Second half of the fourth year.*

[Allowing six weeks for incidental interruptions.]

Art history—One single period a week.....	14
All other subjects counted in weeks of four periods each.....	
1. Metal work.....	5
2. Design—Stencil.....	4
3. Plant study—Water color (full values).....	3
4. Life—Human figure.....	2

ART HISTORY.

THIRD YEAR.

I. Ancient and Middle Ages.

1. Assyrian and Egyptian architecture, sculpture and painting.....	4
2. Greek architecture, sculpture and painting.....	10
3. Roman architecture, sculpture and painting.....	6

Pagan and early Christian art.

4. Saracenic architecture and decoration.....	1
5. Byzantine and Romanesque architecture, sculpture and painting.....	3
6. Gothic architecture, sculpture and painting.....	6

FOURTH YEAR.

II. Renaissance and Modern Art.

1. Art of the thirteenth and fourteenth centuries.....	2
Sculpture precursors of renaissance.	
Beginnings of paintings.	
2. Art of the fifteenth century.....	3
3. Art of the sixteenth and seventeenth centuries.....	7
4. Renaissance in Germany.....	2
5. Renaissance in Spain.....	2
6. Art in the Netherlands, including engraving.....	3
7. Modern art, French, German, Swedish, Dutch, American.....	10

LOS ANGELES, CAL.<sup>1</sup>

ART.

*Purpose.*—The purpose of a course in art is to attain the artistic habit of mind; to cultivate appreciation and enjoyment of the beautiful by observation, by reproducing what is seen, by cultivating the imagination through evolving new creations, by helping students to acquire a sense of power through skill in technique and a knowledge of the principles of harmony of color; to utilize in the practical affairs of life their technical attainments; to give labor esthetic expression; and to assist in raising the standard of civic art in the community.

*Scope.*—The scope of the work in art in the intermediate and high schools includes practice in handling the different media for artistic expression; pictorial representation of objects within and without the classroom; studies from life; designing; illustration; domestic decoration; clay modeling; applied art work in wood, metal, and other materials; art history and art appreciation, either by lectures or by the study of text.

*Methods.*—In teaching pupils to see with understanding, to do without loss of individuality, to repeat again and again without discouragement in order to acquire skill,

<sup>1</sup> May Gearhart, supervisor.

it is necessary that the teacher be master of many methods. Variety of methods as well as of work is necessary to bring out the different powers of the individual. To become an adept in developing a love for proportion, rhythm, and harmony in different pupils a teacher must approach them at different angles and with different methods, with the idea of thought in the conception, delight in the work, and adaptation to use and environment.

**B7.**

Object drawing—Simple groups in outline, color schemes in flat tones; perspective outline studies from books, boxes, etc.

Plant study—Flower, seed pods, etc.; composition; decorative treatment.

Landscape composition.

**A7.**

Color—Color charts, color schemes, making of color book.

Design—Work from plant study of previous term; block printing, stencils; apply to simple articles of use.

Picture study.

**B8.**

Object drawing—Continuation of seventh grade.

Plant study—Continuation of seventh grade.

Picture study—Landscape compositions applied to book covers, etc.

**A8.**

Color—Color schemes, complementary and analagous; study of color prints; application of color schemes.

Design—Study of space relations, applied to articles; abstract problems developed from plant study; stencils.

**B9.**

Object drawing—Proportion; composition; perspective.

Plant study.

Lettering.

Optional—Design in connection with special work; applied art.

**A9.**

Plant study.

Design—Space relation; space filling.

Lettering.

Applied art.

Optional—Design in connection with special work.

**B10.**

Freehand sketching—Perspective, interiors and exteriors, or design for special work.

Object drawing.

Composition.

Lettering.

**A10.**

Historic ornament.

Design—Invention and adaptation.

Applied art.

**B11.**

Cast and pose drawing.

Figure composition, decoration.

History of art.

**A11.**

Historic ornament.

Design—Constructive and decorative.

Applied art.

B12.

Continue B11.

A12.

History of art.  
Applied design.  
Applied art.

## DOMESTIC ART OUTLINE.

B9.

Design—Spacing, tucks, ruffles; for outline, darning, couching, etc., applied to simple bag or border.

Color—Complementary and analogous schemes; freehand sketches; proportion; composition.

A9.

Design—For needlework, scallops, French embroidery, applied to towels, waists, doilies, etc.

Color.

Freehand sketches.

B10.

Design—For needlework: long and short, solid; pillow top; costume design.

Color—Interiors; home plans.

A10.

Design—Lettering and monograms, applied to household linens.

Costume design.

Color schemes.

Home plans.

## MECHANICAL DRAWING.

## In Intermediate Schools.

(NOTE.—“M” indicates mechanical drawing.)

M1. Eighth grade: Line work, dimensions, arrangement of views, drawing to scale, and some inking.

Freehand sketching from objects accompanied by working drawings of same.

Lettering.

M2. Continuation of M1.

M3. Continuation of eighth-grade work, introducing to engineering, architecture, and the trades.

M4. Continuation of M3.

*Purpose.*—It is the general purpose to prepare all students who take this work either for going into employment at the completion of their school work, or to enter any of the city high schools and continue their drawing in any of the various special courses offered.

## In High Schools.

Mechanical-drawing courses are arranged with reference to the course of study being pursued.

\* College preparatory drawing consists of one term of plane geometrical and constructional drawing; one term of solid geometrical drawing, intersections and developments, as required by the State university.

Mechanic-arts drawing prepares for engineering courses in the universities, continuing the six-year courses in the city high schools, or practical use in industrial pursuits.

\* Normal manual training drawing offers training in geometrical drawing, the developments and intersections; also furniture, pattern making, and machine drawing.



Pattern making, cabinetmaking, foundry, forge, and machine shop drawing consists of special training in preparing working drawings, useful and rational designs consistent with good shop practice.

Machine drafting offers a special training in mechanical drawing involving shop practice, machine design, detailing, and drawing-room methods, in which the student is given sufficient practice to prepare dependable drawings with neatness and dispatch.

Engineering, mechanical, and electrical drawing gives practice in the preparing of designs, details, working drawings, estimates, graphics, mathematical, mechanical, and electrical determinations.

The above courses of drawing all give practice in sketching, dimensioning, lettering, tracing, and blue printing. They are intended to be both practical and educational. In all except the college preparatory drawing the student is immediately called upon to prepare himself to produce rational working drawings, established methods are explained, and original thought encouraged and developed. It is hoped that anyone compelled to drop out at any time will have derived some tangible benefit from this work.

The following drawing may occur in different grades, depending upon the course of study followed by the pupil:

	No. Periods of per weeks. week.
M3. Introductory to engineering and the trades. Linework, arrangement of views, dimensioning, drawing to scale, inking, freehand sketching of objects accompanied by working drawings of same, lettering.....	20 5
M3c. Machine drafting. Same as M3, except amount of time.....	20 15
M4. Continuation of M3.....	20 5
M4c. Continuation of M3c.....	20 15
M5. Mechanical engineering, mechanic arts, pattern making, forge, foundry, machine shop. The preparing of general drawings and detailing same from the prints of machine parts, perspective drawings, sketches, data, etc.....	20 5
M5a. Electrical engineering. Same as M5, except the substitution of electrical for machine parts.....	20 5
M5b. Normal manual training, cabinetmaking. Same as M5, except the substituting of furniture and woodwork for the machine parts.....	20 5
M5c. Machine drafting. Same as M5, except amount of time.....	20 10
M6. Mechanical engineering, mechanic arts, pattern making, forge, foundry, machine shop—the preparing of general drawings and detailing same from machines and machine parts.....	20 5
M6a. Electrical engineering. The preparing of general drawings and detailing same for electrical machinery and apparatus.....	20 5
M6b. Normal manual training. Cabinetmaking. Same as M6, except that most of the work is in woodwork.....	20 5
M6c. Machine drafting. Same as M6, except amount of time.....	20 10
M7. Mechanical engineering, mechanic arts. The preparing of working drawings involving the consideration of transmissions, gearing, and mechanical movements.....	20 5
M7a. Electrical engineering. The preparing of working drawings, involving the consideration of transmissions, gearing, and electrical devices.....	20 5
M7c. Machine drafting. Same as M7, except amount of time.....	20 10
M8. Mechanical engineering. Mechanic arts. Designing and drawing of simple machines from formulas, data, and accepted practice, graphics, statics.....	20 5
M8a. Electrical engineering. Same as M8, as applied to electrical machinery.....	20 5
M8c. Machine drafting.....	20 10
M9. Mechanical engineering. Machine drafting. Machine design, strength and selection of materials.....	20 5
M9a. Electrical engineering. Electrical machinery designs, strength and selection of materials.....	20 5
M10. Mechanical engineering. Machine drafting. M9 continued, involving the graphics of work, operation, efficiency, etc.....	20 5

	No. Periods of weeks.	per week.
M10a. Electrical engineering. M9a continued, involving the graphics of work, operation, efficiency, etc.....	20	5
M11. Mechanical engineering, electrical engineering, machine drafting. Engineering sketching, estimating, calculating, designing, and illustrating by perspective sketches, sectioning, dimensioning, etc.....	20	5
M12. University preparatory. Plane geometrical drawing, as required by State university.....	20	5
M13. University preparatory. Solid geometrical drawing, as required by State university.....	20	5
M14. Machine drawing. Special for those having completed M12 and M13.....	20	5
M15. Machine drawing. M14 continued.....	20	5

SURVEYING DRAWING

In the High Schools

(NOTE—"S" indicates Surveying Drawing)

	No. Periods of weeks.	per week.
S1. Freehand lettering. Principles of the Roman, block, and ornate alphabets.....	20	5
S2. Freehand lettering. Continuation of S1 work, with addition of English and German texts and the general arrangement of titles.....	20	5
S3. Map drawing. Includes the usual conventions for plane surveying with practice in the draw- ing of maps from models furnished by the surveying class.....	20	10
S4. Map drawing. A continuation of S3 course with emphasis upon the complete map, including the arrangement of title, length, and bearing of each boundary line, etc.....	20	10
S5. Surveying drawings. For those who have had drawing M12, M13, and trigonometry, consist- ing of field work, use of tape, instruments, plane table, plotting from work, tracing, and blue printing.....	20	5
S6. Continuation of S5.....	20	5

ARCHITECTURAL DRAWING

In the High Schools

(NOTE—"Ar" indicates Architecture)

A four-year course as outlined is intended to give a preliminary training, fitting for office or college.  
Courses 19, 20, 21, and 22 are sufficient for college entrance requirements.

	No. Periods of weeks.	per week.
Ar1a. Line work, dimensioning, arrangement of views, drawing to scale, freehand sketching of objects, accompanied by working drawings of same.....	20	5
Ar1b. Freehand drawing (composition proportion), elements of perspective, pencil work.....	20	5
Ar2a. Continued from Ar1, with special application to work in architecture.....	20	5
Ar2b. Continued from Ar1, pencil and colors.....	20	5
Ar3. Bungalow design, arrangement of rooms, etc.; study of interior and exterior composition, styles.....	20	10
Ar4. Ar3 continued, scale and full-size details.....	20	10
Ar5. 2-story houses, study of staircases, etc.; treatment of materials, simple rendering in pencil, ink, or color.....	20	10
Ar6. Ar5 continued, methods of estimating, outlining in specification writing.....	20	10
Ar7. Problem: as a residence, group of small houses; all to a given program of requirements. Study of Greek orders.....	20	10
Ar8. Problem: schoolhouse, small church, office building; all to a given program of requirements. Study of Roman orders.....	20	10
Ar9. Study of classic orders. Lettering; rendering of plates of classic architectural details.....	20	5
Ar10. Study of the orders continued; rendering in various media, ink, sepia, and color.....	20	5
Ar11. Elements of architectural drafting; working drawing of simple detail. Plans and eleva- tions for simple bungalow.....	20	5
Ar12. Continuation of preceding Ar11; plates of details; perspective drawing rendered in color.....	20	5

## GRAPHICS.

(NOTE.—"G" indicates Graphics.)

	No.	Periods of per weeks. week.
G1. Engineering lettering, composition of forces, movements, investigation of simple frames, investigation of loads, normal and eccentric.....	20	10
G2. Complex frames, reversals of stresses, design and detailing.....	20	10

## STRENGTH OF MATERIALS.

(NOTE.—"Ss" indicates Strength of Materials)

Ss1. Theory of moments, reactions, forces, in materials, introducing work in cement.....	20	6
Ss2. Continuation of theory Ss1: theory of design: laboratory demonstrations in wood, steel, stone, cement, etc.....	20	6

A number of States adopt textbooks in drawing, in which case the outlines are generally planned so that the complete course is based upon these publications. The same is true of a number of cities also. This greatly simplifies the work of the supervisor, but is an additional expense to the community. However, in towns without special teachers this seems to be a very helpful means of presenting the work and often justifies the extra expense.

Most supervisors and teachers make constant use of textbooks and other publications as illustrative material, which, in many instances, are cut up and carefully mounted for classroom study.

## D. APPLICATION AND CORRELATION.

"Education is a preparation for life." Only within more recent times has this saying been interpreted to mean the life of the child, as well as the life after schooldays. Just when drawing began to be applied it is difficult to state, but certainly its application has been a gradual and constant growth.

From the earliest entrance into the school curriculum, map drawing has been closely correlated with the study of geography. With the advent of manual training and the beginning of the arts and crafts movement, the shop problem was severely criticized from the standpoint of good design. The gradual breaking of the barriers of professional jealousy and pride finally resulted in the correlation of drawing with shopwork. Design resolved itself into two kinds, applied and constructive, the one meaning surface enrichment, the other design which entered into the actual construction of the three-dimensional problem.

Thus an early and excellent beginning was made, and, as many and varied materials found their way into the schoolroom in the form of elementary handwork, it was found that to divorce drawing and construction was impossible. They are quite inseparable, the one finding its natural outlet in the other.

The actual problems were at first more or less abstract and unrelated to any particular use or immediate need. Before long, however, the other school work began to receive attention from the supervisor and, in seeking new problems, correlation with regular school subjects came into being. In addition the child's outdoor activities, his home environment, and his social life began to be studied; and the principles of drawing and design, soon followed by the actual constructive work, were directly applied to the child's immediate life.

The field for correlation seems almost unlimited. Even a casual survey of the outlines included in this bulletin will show how closely both drawing and construction are related to the school subjects and to each other. Illustrative drawing is applied to the reading and story-telling, to history and to geography. Object and nature drawing are closely associated with nature study, geography, and history.

The school booklet has come to be a common problem, of inestimable value, in relating drawing, design, and construction to any and all studies in the curriculum. Booklets of spelling, writing, arithmetic, history, etc., are eminently successful ways of enforcing school teaching, and form dignified and permanent records of lasting value.

Mr. Henry T. Bailey writes:

The making of a good booklet involves the vital correlation of several school topics and processes, presents many opportunities for sound instruction, gives a wide scope for individuality, and furnishes genuine training of hand and eye. From such work the pupils derive more pleasure and more solid satisfaction than from any other school project yet discovered.<sup>1</sup>

One energetic teacher of the South<sup>2</sup> suggests most interesting methods of adapting the booklet problem. She writes as follows:

If drawing is to take its place in our elementary schools (respond to some need in the pupils everyday life) and is not to be an isolated subject, then the special-day program and the club work that is now a part of our southern schools must come in for a large share of attention.

In this special program and club work drawing has been so correlated as to be of the utmost value. The drawing correlated with a study of our State has been the means of teaching more of its history than ever before. Space will not permit me to give an outline in detail or to show how correlation with English, history, spelling, or geography was done to great advantage to the pupils, in that more interest was shown in the lessons, clearer understanding of the subjects prevailed, and less time was taken to learn the assignments."

These schemes of correlation and problems for booklet making follow:

*Mississippi Day.*—Design cover for booklet, using State flower as unit of design. Illustrate pages on following subjects: Discovery; early history; soil; agriculture; manufactures; cities; educational institutions; history of State flags; famous men; legend of State flower.

<sup>1</sup> "Booklet Making," by H. T. Bailey. The Prang Co.

<sup>2</sup> Beale R. Murphy, supervisor of drawing, Meridian, Miss.

*Arbor Day.*—Booklet "In Our Forest," same to contain careful drawings and descriptions of trees found in our State, also legends of same. Illustrate papers on "Uses of trees," "Best means of preserving our forest" (7th grades). Arbor Day invitations and programs.

*Tomato Clubs (girls).*—Each member designs book-cover, using club emblem as unit of design. Illustrate pages for book on "Club yell," Preparation of soil, Culture, etc. Make and design cover for tomato cookbook.

*Corn Club (boys).*—Illustrate papers on methods of planting, testing of seeds, preparation of ground, enemies of the plant, harvesting the crop, marketing the crop products of corn.

*Cotton Clubs (boys).*—Make booklet shape of cotton bale. Make careful drawings and give descriptions of seed, boll, blossom, boll weevil, picking baskets, bale, shipping, cotton products.

Other booklets are Health Day, Library Day, Field Day, Consolidation of Schools (including drawings of school buildings, etc.), Our Wild Flowers.

School pageants and festivals are a fascinating outlet for the drawing work. Historic art and costume and historic environment are really studied and actually practiced with not only a wealth of valuable knowledge gained, but intense enjoyment received. The "bug-bear" of discipline is swept aside, and very truly has some one said that teaching drawing is a joyous occupation. A school outline refers to this work as a part of the art teaching.<sup>1</sup>

Wherever possible the art work is made to express school, home, individual, and social interests. The course as indicated is a separate statement of the grades; it is not rigid and is modified whenever special reasons for doing so arise. For example, the artistic needs of the festivals often furnish excellent problems for team work. The making of symbolic decorations for the gymnasium, where the school gathers, decorating costumes by stencil design or otherwise, the painting of scenes for the plays, designing stage properties, making banners and devices for Christmas processions, and the working out of program designs are typical phases of festival art work which introduce an excellent stimulus for cooperative effort.

Childhood games and sports receive their due attention. Kites, boats, sleds, skes, and a host of other things are made, after being first designed in the drawing room. The latest and one of the very finest forms of manual training—printing—offers unusual opportunities for the applied art work.

Illustrations for the elementary year book and decorative designs for other school printing, posters, and various other pieces of lettering for school use offer opportunities for the application of the art to everyday needs.<sup>1</sup>

The home is also studied and furniture designed and made, color schemes are rendered, and home decoration is seriously considered. A direct application is supplied for rug and wall-paper design and designs for all home furnishings. In the lower grades actual miniature (doll) houses are furnished complete, with color schemes and all necessary furniture.

Even different countries and civilizations are studied through the drawing and handwork. The actual lives of the Indians, the Esqui-

<sup>1</sup> "A course of study in art," Ethical Culture School, New York City. Outlined by James Hall.

mos, the eastern nations, and the western nations are worked out in clay on the sand table or through drawing and painting.

Through such interesting work drawing is no longer a "special subject," but is a natural and necessary means of development in modern education. Its value must lie unquestioned when without it the modern vital and concrete problems can not be adequately studied. But the correlation must be natural, never forced. The true conception of the real meaning of drawing—the arts—for education at least, will readily show its place in relation to the child and to school work.

Says Miss Emma Church:

As to the work and industry of our school community we will but need to turn to the history of the race for the natural order of development of the forms of expression, and we find the arts to have the first place, and those always first that call for motor expression, such as games, dances, ceremonials, song, pottery, weaving, and construction of various things of use, to which has always been added some design of religious or other signification. In the creation of these various things much thought is needed; and the ingenious teacher, instead of teaching reading, writing, arithmetic, and history as unrelated subjects, can create a necessity for their use, and to her joy will it be found that there is no difficulty in teaching children anything they want to know when they have use for their knowledge. We might eliminate grammar and spelling, and use words and language well, and step by step refine their use. All correlations should take place in children's consciousness, instead of our trying to correlate subjects.

Costume design and personal adornment are further opportunities for correlation. Dresses, hats, belts, collars, bags, jewelry, etc., are designed, constructed, and put into everyday use. Commercial courses include a study of commercial art; industrial courses involve study in industrial design; and classical courses demand the study of the arts of civilization.

For the benefit of the grade teachers, New York State has issued correlative charts,<sup>1</sup> based on the elementary syllabus. Each of the three charts, in which certain grades are grouped, gives page references to all subjects and quotes passages wherein the drawing and construction, or handwork, may be utilized and closely correlated with each. One university<sup>2</sup> has gone a step farther than this and has interwoven all subjects, including drawing, so that each is definitely related and quite dependent upon the other.

The supervisor of to-day never formulates his outline without considering all these forms of correlation, and abstract teaching is seldom if ever heard. Always the lesson of one day is applied on another, and the final result is a work of immediate and often lasting value. The fine mental training, certainly, is never lost, and the growth of art appreciation is constantly quickened and strengthened.

The broader conception of the idea of correlation seeks further to stimulate local pride in the designing and planning of decoration for

<sup>1</sup> Worked out by State normal-school teachers.

<sup>2</sup> Teachers' College, Columbia University, N. Y.

the school and other public buildings, the laying out of the school grounds, and general civic improvement; this last including the abolishment of sign boards, the cleaning of city and town streets, the study of lamp-posts, hydrants, watering troughs, monuments, and all other objects of public use. Such work, however, is in its infancy and requires for successful operation both keen intelligence and excellent training, supplemented by constant study. But the seed has already been sown, and a number of cities are gradually developing this practical application of principles too long applied to abstract and far-off problems.

#### E. PICTURE STUDY AND SCHOOL DECORATION.

Nearly every supervisor gives opportunity for picture study in the drawing course. While picture painting is not the aim of the teaching in drawing, any more than novel writing or the composing of poetry is the aim of the teaching in English, art appreciation is a main issue; and a study of fine pictures, showing the application of principles used in the classroom, is of great value in obtaining it. The mere ability to recognize great works of art is a source of constant enjoyment and a means of stimulating confidence, factors not to be lightly ignored.

The art sense is a product of education. It can be developed in accordance with either good or bad principles, high ideals or low ideals. Refined aesthetic taste comes from culture, and that is the basis of all true appreciation of art; to secure this culture we must have a knowledge of the lives and works of the artists themselves. The ideals of these artists will have much influence upon the world's ideals; the greater the artist the greater the influence; and therefore the more interesting and suggestive are the lessons to be derived from a knowledge of his life and achievements.

Emerson said: "It is better to educate a hundred people to appreciate art than to educate one artist."

I believe the psychology of art instruction for children to be the same as that of all subjects contained in the curriculum. We must use all these as a means for unfolding and developing the human spirit, which is really education in the highest sense, as what we are after is culture, and the power and perfection that come through culture.

Therefore surround the child with all that makes for culture. So give the children the best in art, literature, music, and in all subjects.<sup>1</sup>

Little more than recognition is sought in the early grades; but, as the pupil progresses, the elements of perspective and composition are considered. In the upper grades and high school the tendency is to include sculpture, architecture, and the minor arts and crafts. Here the study may be continued outside the school walls, and such subjects as public monuments, sign and lamp posts, gates, fences, walls, etc., may be profitably discussed.

<sup>1</sup> Ida Hood Clark, in "Symposium on Picture Study," School Arts Book, Vol. VII, No. 6.

Picture study is taught by means of small "penny" pictures for individual pupils and large wall pictures for the class as a whole. Both methods have certain advantages. Small pictures are much more easily handled, and they may be mounted and preserved with written work in the form of a school booklet. Furthermore, the expense of obtaining wall sizes of the total number of pictures usually studied would eliminate such a procedure in the average school.

Reference to the outlines reprinted in this bulletin will give typical pictures used in each grade.

The character of the subject depends upon many things.

While the child's preferences are not the only factors to be considered, they can not be ignored if, as Jerome Eddy and so many others claim, *delight* is the purpose of art. The wise teacher will select from the most beautiful things in every realm those which awaken a response in the child, and will arrange these in such an order that as the child passes from grade to grade he may pass from one stage of appreciation to another until, perchance, he comes to delight in the adult "best."

A rough working classification seems to be this:

*Primary grades:* Appreciation of the story in pictures about pets, little children, home life, and everyday experience.

*Intermediate grades:* Appreciation of the story in pictures about wild animals, boys and girls in action, and the occupations of men and women.

*Grammar grades:* Appreciation of the story and of how it is told by selecting and arranging the elements of the picture. First, enjoyment of the composition or design of the picture.

*High school:* Appreciation of the picture itself, its composition, its technic, its spirit or mood, its personal message.

Of course, these overlap, interlace, flow together, according to the picture, the individuality of the child, and the temperament of the teacher. There are, in the large, but two subjects in picture study—the *story* of the picture and the *art* of the picture; what the artist has to say and how he says it. (The archeological study of the picture—who painted it and when, to what school the artist belonged, where the picture is hung, and how much it is worth—is not picture study, but a phase of history.)<sup>1</sup>

Two former State agents for the promotion of manual arts in Massachusetts speak of this subject as follows.

Mr. Frederick L. Burnham<sup>2</sup> writes:

Grades I, II, III.

The story of the picture.

Application to school work.

Illustrative sketching in color.

Grades IV, V, VI.

In the intermediate grades little formal study attempted.

Added to the story is the study of light and dark and the artist's name.

A beginning is made in picture making by combining simple forms and using values of gray and color.

<sup>1</sup> Henry Turner Bailey, editorial on picture study. School Arts Book, Vol. X, No. 7.

<sup>2</sup> Deceased.



Grades VII, VIII, IX:

The necessity of unity.

The affinity of parts.

The importance of the language of art to express ideas.

Booklets made by pupils containing a few good pictures and a simple story of the artist's life.

In each room hang a few pictures of sufficient size to command attention and worthy of a lifelong acquaintance. Little know we what influence the pictures to the child's life will lend. I believe in memorizing pictures.

There are many good pictures well suited to children, but the few best should be chosen to become permanent examples of good art. A few technical terms are necessary. The study and comparing of interesting pictures, the making of fine picture books, and the development of simple pictures is possible and desirable.

Mr. Walter Sargent<sup>1</sup> says:

I believe masterpieces of pictorial art should be used in teaching children. My opinion with regard to how children should be led to appreciate their beauties is as follows: The pictures presented to each grade should be such as are appropriate to the age of the children, e. g., the works of Millet are more easily appreciated by young children than those of Michael Angelo.

In primary grades it is sufficient to call attention to the pictures now and then to take one after another of the pictures owned by the school and put each for a few days in some place of prominence, perhaps on an easel; to talk about the story, so the imagination of the child may be set at play under the influence of the picture.

In the intermediate and grammar grades stories of the artist and his country help to an understanding of the picture. Children who are drawing certain things may with profit be referred to pictures where such things are well rendered—for example, houses, trees, people, etc. They may also find help in copying good color harmonies. Further than this, any analysis for technic or composition is of questionable value, so far as aesthetic education of pupils of elementary school age is concerned.

In high school more can be attempted with good results. Even here, however, unless the teacher is herself a lover of art, she would better not attempt to analyze pictures for technic and composition. The problems of composition and technic can be studied equally well from magazine illustrations.

It is of first importance that the teacher should be a sincere lover of whatever work of art she attempts to teach. If she does not care for it herself, she will hardly lead the children to appreciate it. One's desire for appreciation of fine things is usually awakened by realizing the appreciation of others in whose opinion he has confidence.<sup>2</sup>

Usually from three to six pictures are studied during a year in each grade, and in almost all teaching the subject is closely correlated with English and drawing. Other subjects enter in, according to the kind of picture studied.

Closely associated with the study of pictures is the study of school decoration. This is no doubt largely due to the fact that the room pictures, naturally a most important part of the general scheme of interior decoration, are purchased with the picture study work in mind. Until recently pictures in color have had little or no place in the schoolroom. Original paintings being too costly, and earlier

<sup>1</sup> Professor of art education, Chicago university.

<sup>2</sup> "Symposium on Picture Study," School Arts Book, Vol. VII, No. 4

processes of lithography producing inartistic results, the type of picture was necessarily confined to the black and white or Sepia photograph. But the advent of Japanese products for public-school use, including some exceptionally and often remarkably fine color prints, the invention of three and four color processes in printing, color photography, and the successful work in the perfection of lithographic prints by the German, English, and French artists, have led to untold possibilities in the use of colored pictures.

A promising departure from the movable picture is the mural painting. The fact that already State and municipal laws have been passed giving the school building as a place for community gatherings has led the public to consider it as a building of civic pride. As such it demands attention to its decoration. In a number of places public spirit and the united efforts of both school authorities and teachers and pupils has led to the purchase of fine mural paintings. High schools in Trenton, N. J., Decatur, Ill., Oyster Bay, N. Y., and New Brighton, N. Y., show excellent examples of this kind of work. In Chicago mural paintings have been placed in the city schools by students of the art institute. For seven years or more this excellent work has been in progress, with the result that 80 or more panels have been placed on the walls of both grammar and high schools

The schools have, through various methods, paid the expense of canvas, carpentry, paint, and model hire; they have also paid, in all cases, prizes to the winners of the sketch competitions, so that the students who execute the works are not uncompensated. \* \* \* In a building where there are instructed daily some 1,800 children, only 24 of whom were born of American parents, these pictures have a function beyond the purely decorative. In such a room we have represented "Columbus Sailing," the "Landing at Jamestown," "La Salle on the March," "Washington at Cambridge," "Clark on the Way to Vincennes," and "Lincoln." These hundreds of children must grope their way into American traditions, for the Old World traditions of their fathers and mothers do not long hold out against the hard attrition of the American city. The children find in the paintings some hint of this America in the making. And we, when we look at them in an optimistic mood, may be pardoned if we forget how superior in critical faculty we have become, and may find in them a glimpse and a prophecy of art in service as it used to be.<sup>1</sup>

All work of this character and spirit is to be most highly commended, and with such an admirable start it should not be long before many other cities containing art schools or with such schools in their vicinity follow Chicago's example.

A discussion of the use of pictures as decoration has been well presented in a talk on schoolroom decoration by Dr. James Parton Haney, director of art in the high schools of New York City. An abstract follows:<sup>2</sup>

<sup>1</sup> Thomas Wood Stevens, *School Arts Magazine*, Vol. XII, No. 5.

<sup>2</sup> Reprinted from the *School Arts Book*, Vol. V, No. 5, p. 391.

I. To prevent confusion in discussing problems, it is necessary to distinguish the three ways in which pictures may be used in schools:

- (a) They may be studied for their culture value.
- (b) They may be used as illustrations.
- (c) They may be used as decorations.

The same pictures can not, as a rule, be used for any two of these purposes. Pictures for decoration must be chosen for that particular purpose.

II. The questions involved in the selection and hanging of pictures are questions of design. The problem of decorating a schoolroom is a problem in design. The great aim should be to get pictures of appropriate size and nature well placed. Each wall space when decorated should appear as a simple and pleasing design.

III. The elements to be considered are: (a) Size of wall space; (b) nature of picture; (c) framing; (d) hanging.

IV. Wall spaces: Pictures should be specifically chosen to fill the spaces which offer. Large spaces may require two pictures or even three to fill them properly. In a smaller space, effort should be to have wall space about picture aid to frame it.

V. Choice of subject:

(a) Pictures should appeal to children of the class: Animal, farm, and family scenes for the smaller children. Genre pictures, and those filled with figures, to be avoided. Ditto, architectural subjects in lower grades.

(b) The picture that is strong and simple in composition and "tells the story well" across the room, makes the better decoration.

(c) Unity should be preserved so far as possible in the forms of reproduction shown, i. e., a mixture of etchings, engravings, photogravures, and color prints is to be avoided.

(d) Process pictures, photogravures, and poster color prints are satisfactory. Bright lithographs and imitated water colors are unsatisfactory.

VI. Framing: Simple wood moldings recommended, dark brown, gray, or green, not black or gilt. Large pictures should have broad moldings. No gingerbread decorations. Large carbon prints should be framed without margin. Engraved plates require a liberal margin between picture and frame.

VII. Hanging: Pictures should be hung flat from two hooks. The screw eyes should be at top of frame. In hallways and other large spaces they should be hung just above the eyes. If hung above blackboard, 8 inches' space should be between frame and board. In limited spaces hang pictures in middle of space. Hang casts in same way as pictures. Large, flat, ivory casts are to be preferred.

VIII. Order of general decoration in a school:

(a) Determine chief sites, i. e., halls, stairways, landings, etc. Arrange these in order of their importance.

(b) Fill each in order, choosing pictures suited in size, in subject, and in composition.

IX. Methods of obtaining pictures:

(a) From supply list; (b) from graduating classes, subscriptions, gifts, etc.; (c) from school papers, games, etc.

X. Standards of criticism. What a well-decorated school would show:

(a) Each room would appear a good design, with a few pictures well hung. No one in a space to which it was not adapted.

(b) Nothing on the walls; as burlap, cartridge paper, etc., would distract attention from pictures. No unframed pictures would appear.

(c) There would be a unity in the decorations of the room and in decorations of school as a whole.

(d) Overdecoration—busts, medallions, flags, etc. (particularly of the school platform)—would not be observable.

Plaster casts are important features of decoration and are fast becoming as common in the schoolroom as pictures themselves. They are always a welcome addition to the flat picture and relieve the room of undue monotony. As in the use of pictures, casts should be suited to the grade and room. Of this Mr. Bailey writes:

Whatever the decoration, it should be suited not only to the grade of the room, but to the architectural arrangement. It should be in right relation to the wall space and to the amount of light. If a cast is used, it should be "framed in" or adequately supported in some way, that it may not appear a mere fragment insecurely placed. The amount and direction of light is the determining factor in the placing of a cast. A few fine things perfectly adjusted to all the conditions is the ideal. A cluttered schoolroom is worse than a bare one. A well-decorated room makes its impression first as a whole, as a beautiful piece of color, as a unity within which all the parts are happily related to each other. Such a room affords indescribable satisfaction. "A thing of beauty is a joy forever."<sup>1</sup>

Additional decorations used for the interiors of schoolrooms are artistic vase forms, tiles, fine textiles used as curtains or simple backgrounds, window boxes, and flowers. Used as touches of color to enliven an otherwise quiet-toned room, these objects may minister a lasting service to the child. Through the good influences of art magazines, school and other publications, and trained supervisors, the old-time inartistic engravings of great men, busts of the poets, and wall borders of spelling and writing papers are rapidly disappearing, and objects of beauty are taking their place. Where written work or school notices are displayed, neat bulletin boards are everywhere in evidence.

More than ever before, general color schemes and the furniture of the rooms are being carefully considered by boards of education and school architects. As a result many modern schoolrooms are places of delightful resort for the children, who spend nearly half their whole day growing within their walls. Changes in school architecture, light corridors, well-designed stairways, and magnificent auditoriums have all added their part in making the school beautiful.

For a number of years the exterior of buildings has been receiving increased attention. Many schools have practiced the scheme of planting an ivy on graduation day, thus providing for adornment by nature in the years to come. Arbor Day has come to mean more than the planting of one small tree by a whole school. In fact the day is but one of many in which the children plan and execute problems in landscape design. Shrubs and flower beds, school gardens, and grass plats and graded walks are all part of a general decorative scheme, by no means the exception in the modern public school. Though impossible in some large city schools, in congested districts, such wholesome training is easily available in the residential districts,

<sup>1</sup> Editorial, School Arts Book, Vol. X, No. 7.

and should prove an indispensable feature of the country and rural school curriculum.

Through each means the children, who are too often confined within the narrow limits of an education for the "struggle of life," will be receiving the beginnings of that "Ideal of Life, Beautiful Living." "Children who are brought up in such an environment will some time be men and women who will not allow dumps, billboards, unkept public grounds, and neglected private yards to disfigure their town."

School and art associations have been directly instrumental in furthering the problem of school decoration, and in a number of instances literature of various kinds has been published upon the subject. In New York State the visual instructions division<sup>1</sup> of the university loans wall pictures to the public schools for a period of one year; also lantern slides on various subjects, including painting and sculpture, and hand photographs for picture study. Circulars listing all subjects are freely distributed and State money is duplicated on approved wall pictures and apparatus for visual instruction. The following are "Suggestions for school decoration," arranged by the Public School Art League and the director of drawing in the public schools, and published by the school committee of Worcester, Mass.:

#### THE SCHOOL YARD.

*General plan.*—A carefully thought-out plan of action is exceedingly important in all work. It is especially so in arranging for the beautifying of a school yard. The areas to be devoted to playground, grass plot, trees and shrubs, and flower beds should be thoughtfully considered, and then the varieties of each growth selected with reference to the soil, and the space each is permanently to occupy.

*Grass.*—A small plot of well-trimmed grass is always pleasing in a school yard. It should be kept in mind, however, that the larger part of the area should be devoted to playground and the smaller portion to the lawn. Usually it is best to select a space at the front or sides of the building or along the boundaries of the yard for the purpose. After the grass is well started it should be clipped at frequent intervals with a lawn mower and the edges of the plot kept neatly trimmed.

*Trees and shrubs.*—Many varieties of trees and shrubs are suitable for school yards. If possible, those of a hardy nature and quick growth should be chosen. The place of each tree or shrub should be carefully selected in the whole scheme of outdoor decoration, as when once planted they become permanent features.

*Vines.*—Vines, like trees and shrubs, are excellent for decoration, as after once starting they require little further attention. They are especially desirable about a brick or stone building in that they soften the severeness of the architecture and afford a most pleasing contrast in color. The hardy varieties only should be used. Where a building is concreted about its foundations and the concrete can not be broken, it is often possible to plant the vine just outside the concrete and carry it to the building by a short iron or wood trellis. Unsightly fences, walls, and rocks may also be much improved by carefully trained vines and creepers.

*Plants.*—Plants in the school yard are desirable when well cared for. Too often, however, a good start is made in the spring, but through lack of care during the sum-

<sup>1</sup> Alfred W. Abrams, chief.

mer vacation, a very discouraging result is reached later in the year. It would seem much more desirable to devote attention to grass, trees, shrubs, and vines at first, and then, if proper care can be given, to take up the problem of plants with the more hardy and vigorous varieties.

*Care by pupils, teachers, and janitors.*—The pupils, directed by the teachers, should have the largest share in caring for the school yard. It should be a part of their education, and they should feel that they are responsible as a body and individually for its appearance. The sympathy and active help of the janitor are always of great assistance, and every means should be taken to enlist his aid in the work.

*List of trees, shrubs, vines, and plants.*—To give a list of trees, shrubs, vines, and plants is extremely difficult, inasmuch as the conditions of two school grounds are seldom alike. Sometimes the lot is located at a corner, with two rows of trees along the street, and the building only a short distance from the walk. In this case the trees, with a vine for the building, and a grass plot, are entirely sufficient. Again, if the soil is light and gravelly, it is possible to grow only a few kinds of trees, such as the Norway maples and birches. The less hardy and more ornamental trees and shrubs require at least 18 inches of good soil at the surface, and to this should be added a cart-load of loam for each planting.

In the case of brick buildings care should be taken to select only those growths whose foliage is in harmony with the color of the walls.

In beginning the outdoor work consultation with practical horticulturists is advised. In every district there are men well informed in the subject who will be glad to give advice without the expectation of reward for their services.

TREES.

Cut-leaf Birch.	Catalpa Speciosa.	White Pine.
Mountain Ash.	Carolina Poplar.	Norway Spruce.
Weir's Cut-leaf Maple.	Red Oak.	Fir-Concolor.
Norway Maple.	Pin Oak.	American Hemlock.
Silver-leaf Maple.	Scarlet Oak.	
Schwedler's Maple.	Scotch Larch.	

SHRUBS.

Forsythia Suspensa (Golden Bells). Blossoms before the leaves appear. April. A graceful, drooping growth.  
 Forsythia Fortunei. April. Upright and strong growth.  
 Both of the above should be planted where they will have sunshine.  
 Deutzia gracilis. White. Early in June.  
 Deutzia Crenata (Pride of Rochester).  
 Exchorda Grandiflora. Summer.  
 Spirea (Van Houtte). White. Last of May. Drooping habit. Four to six feet.  
 Spirea (Anthony Waterer). Crimson. All summer. Two feet.  
 Spirea arguta. White. May.  
 Barberry Thunbergi. June. Green leaves, with metallic luster. Yellow blossom and red berries.  
 Lilac. Persian. Two varieties, white and purple. Not as coarse growing as the common French variety.  
 Lilac. Charles X. Reddish purple.  
 Viburnum plicatum (Japanese snowball). Handsome plicated leaves. Whiter flowers than the common.  
 Hydrangea paniculata grandiflora. August. White. Flowers remain all winter.  
 Syringa Philadelphia (Mock orange).  
 Weigelia Candida. White. June.  
 Weigelia Rosa. June.  
 Weigelia Eva Rathke. Summer.  
 Sumac. Native.

SHRUBS DESIRABLE FOR COLORED FOLIAGE.

Golden Elder. White.  
 Golden Spirea. White.  
 Variegated Weigelia. Foliage green, white, and pink.  
 Variegated Dogwood. Silver-margined. Slow growing, but very desirable.  
 Purple-leaved Barberry. Red fruit.  
 All of the above should be planted in the sun to develop the best color.

## VINES.

- Ampelopsis Veitchii (Boston or Japanese ivy). Clings to brick and stone walls without support.  
 Ampelopsis Quinquifolia (woodbine). Desirable for trellis, walls, and fences.  
 Trumpet Vine. Red, trumpet-shaped flowers. Blooms all summer.  
 Loncera Japonica Halleana. Nearly evergreen. Continual bloom of delicate, fragrant, cream-colored flowers. Not quite hardy if trained up, but desirable on rocks and walls.  
 Clematis Paniculata. Strong growth. Covered in September with white flowers.  
 Clematis Virginica (Virginia Bower). Similar to above.  
 Loncera Sempervirens (Scarlet honey-suckle). Scarlet flowers in profusion. Red berries.

## HERBACEOUS PLANTS.

- Paeonia. Different varieties.  
 Perennial Phlox. Different varieties.  
 Gypsophila paniculata. White.  
 Gaillardia.  
 Aquilegia (Columbine). Different varieties.  
 Asters. Different varieties.  
 Coreopsis Lanceolata. Yellow.  
 Delphiniums. Shades of blue.  
 Heleniums. Shades of yellow.  
 Hemerocallis Flava (Lemon Day Lily).  
 Funkia Subcordata (White Day Lily).  
 Funkia Coerulea (Blue Day Lily).  
 Funkia Bleboldi. Green and white foliage.  
 Dicentra (Bleeding Heart).  
 Oriental Poppies. Shades of scarlet and black.  
 Astilbe Japonica (Japanese spires). White.  
 Golden Glow.

## THE SCHOOLROOM.

There should be a definite plan of action in the decoration of each room and corridor that the results in the entire building may form a harmonious whole. To this end the following subjects should be considered: Color of walls, pictures, casts, temporary objects, blackboard drawings, pottery, plants, and flowers.

*Color of walls.*—This generally receives too little attention. The color and tone of the walls in a schoolroom should depend upon the amount and quality of light which it receives, and this is governed by the point of compass to which the windows open, and by their relative size. The color of the woodwork and walls should be considered together. Where the natural color of the wood can be retained, the effect is very pleasing. If the woodwork is painted, it should be done in light broken tones of color, in harmony with the wall tint, due regard being given to those colors which best withstand the activities of school life. A wall against which pictures and casts are to be placed should have no pattern to confuse the eye. Soft, restful tints should be used—lighter tones in the darker rooms, and darker tones in the lighter rooms. A pleasing effect may be produced by bringing the tints of the ceiling down the side walls to the picture-molding, and completing the remainder of the side walls in one tone of color.

*Pictures.*—In the selection of pictures, the following suggestions should be noted: Size and general color effect, subject, process of production, cost, frame, and hanging.  
*Size and general color effect.*—For permanent decorations, pictures should not only be large enough to fill the desired space well upon the walls, but the details of the pictures themselves should be sufficiently large and clear to be seen easily across the room. They should be selected also with reference to the color tones of other objects in the room, and to the light which they will receive when placed in position. It is much wiser to wait until sufficient funds for a satisfactory article are secured than to purchase inferior things whenever a little money is accumulated.

*Subject.*—The subject of the picture is of great importance, and should be selected with special reference to the age and knowledge of the pupils. It is well for the picture to have a direct bearing upon their lives, or upon the subjects about which they are studying. The beauty of the picture is of first importance, however, and should not be sacrificed for the sake of instruction. It should also be remembered

that the cost of a picture, or the reputation of the artist, is not a sure guide as to its value for school purposes.

*Process of production.*—It is very seldom, indeed, that an original picture can be afforded for the schoolroom. Reproductions must take their place.

*Photographs.*—A silver print photograph, taken directly from nature or from a fine painting, is probably the best picture without color that can be obtained for a small sum. A silver print will change slightly with time, and for this reason a carbon print, which is permanent, is more desirable. Carbon prints come in several colors, varying from a greenish gray, through various tones of brown, to a deep red brown, suggestive in many cases of the richness of color in the original painting. They are unfortunately somewhat expensive, but one fine, large carbon is worth many of the smaller cheaper prints.

*Colored photographs.*—Many good colored photographs, especially of architecture and natural scenery, can now be found. When large and simply framed, they are frequently to be preferred to the uncolored photographs of the same subject.

*Half tones.*—Large half tones are obtainable at a low price, but vary greatly in quality. Where cost is an important item they should be considered.

*Solar prints.*—Solar prints are comparatively inexpensive, but somewhat liable to fade. Many large architectural pieces are quite satisfactory at their price and may be used to advantage in large rooms and corridors. Fine examples may be seen in the magazine reading room at the public library.

*Photogravures.*—Good photogravures are excellent as reproductions, and as their cost is relatively about the same as that of carbon photographs they should be considered together.

*Lithographs.*—Lithographs, like half tones, are inexpensive and should be used when cost must be the first consideration.

*Colored lithographs.*—These vary greatly in quality. Those reproduced from famous paintings are usually not at all desirable, but those made from pictures painted for this special purpose are exceedingly good. They are delightful in color, and being usually large and inexpensive should certainly have an important part in schoolroom decoration. This process of reproduction for water-color paintings is such that it is frequently difficult to distinguish a print when framed from the original painting.

Reference is specially made to those of Reviere, Paris; Teubner, Leipzig; Prang, Boston.

*Cost.*—The list of pictures and casts to be found on a succeeding page is not intended to be complete, but to suggest those things that seem best adapted to schoolroom decoration at the present time. In selecting, reference may be had to the collection of catalogues at the office of the superintendent of schools. Further information may then be had of the local dealers or of the Art League. Importations may be made through the league free of duty. This in many cases will materially reduce the cost of the better class of pictures.

*Frame.*—Many otherwise pleasing pictures are spoiled by poor framing. The object of the frame is to serve as a break between the surrounding background and the picture, and not as a piece of decoration in itself. It should be a plain band of wood of a width suitable for the picture and harmonizing with it in color. If a mat is used, it should be in harmony with both picture and frame as to size and color. The picture and frame should form one harmonious whole, of which the picture itself should be the center of interest.

*Hanging.*—When the picture is framed and placed upon the wall it no longer stands alone as a separate thing, but forms a part of the whole scheme of decoration. It should hang nearly flat from the molding, as low as it can be well placed, and should then seem to form a component part of a well-planned, harmonious room.

*Casts.*—Casts are beautiful for their line and mass, and when made from sharp molds are nearly as fine as the original model. The difference between a good and a poor



cast can be told, as a rule, by the price, cheap casts being made from worn-out molds. Great care should be taken in selecting casts for the above reason. They should be so placed in the schoolroom that they receive the light from one side, if possible, in order to accent the relief to the best effect. Generally speaking, one large cast is sufficient for any ordinary schoolroom.

*Temporary objects.*—Objects placed in the room temporarily should express the fact frankly. It is almost impossible to keep such things in harmony with their surroundings, their usefulness being sufficient excuse for their presence. They should be removed as soon as their purpose is served and not allowed to remain to become covered with dust.

*Blackboard drawings.*—Pictures drawn upon the board are for purposes of instruction, not for decoration, and, like all temporary things, should be done away with when they have fulfilled their mission.

*Pottery.*—Selections of pottery should be made with care. Large pieces, simple in line and good in color, are desirable, but are unfortunately generally expensive. The cheap, overdecorated wares with which many shops are filled should be carefully avoided. One or two pieces well placed about a room add greatly to its appearance. Reproductions of antique brass, copper, and pewter are also desirable, as many of the pieces are beautiful in line, while the color of the metal adds a pleasing note to the general color scheme.

*Plants and flowers.*—A few well-kept, thrifty plants, with or without flowers, add to the cheerfulness of a schoolroom. The more hardy palms and ferns, when placed in drip glaze jars of simple form and beautiful color, are desirable and afford a very effective decoration. Children delight in bringing the teacher bunches of all sorts of blossoms, frequently with stems so short that it is not easy to put them in water. There is no beauty in such a bouquet, and no encouragement should be given it. A mass of flowers of one variety, well arranged, in an appropriate vase or jar, is beautiful while fresh. In all cases the flower or flowers should be in harmony with the receptacle and should not produce a feeling of being overcrowded. Branches and blossoms and a few flowers are also capable of fine arrangements independent of vases. In the grammar grades and in the high schools a committee of pupils might be appointed to take charge of this method of decoration. Care should always be taken that the flowers are fresh and that none whose pollen is irritating are used within doors.

## PICTURES.

Italian Art.	Italian Art—Continued.
Albertinelli: The Visitation.	Correggio: Madonnas in Adoration. Holy Night.
Angelico: Coronation of the Virgin.	Da Vinci: Madonna of the Adoration.
Bartolommeo: Two Angels. Virgin and Child with Saints.	Da Vinci: Angels. (Series.)
Bellini: Virgin Enthroned.	Da Vinci: The Last Supper. Mona Lisa.
Botticelli: Coronation of the Virgin. Fortitude. Holy Family. Madonna. (London.) Minerva.	Del Sarto: Holy Family. (Florence.) Madonna of the Harpies. (Details.) St. John.
Carlo Dolce: Poetry. St. Cecilia. Virgin and Child.	Domenichino: Cumean Sibyl. Diana's Hunt.
Carpaccio: Angel with Mandolin. St. George and the Dragon. Triumph of St. George.	Donatello: St. George.
	Girolamo Savonarola: Head of the Angel. Head of St. Elizabeth. Head of the Virgin.

Italian Art—Continued.

**Giorgione:**  
 The Concert.  
**Giotto:**  
 Dante.  
**Guido Reni:**  
 Aurora.  
 Mater Dolorosa.  
 St. Michael.  
**Lippi:**  
 Coronation of the Virgin.  
**Lotto:**  
 Three Ages of Man.  
**Luini:**  
 Virgin of the Rose Trellis.  
**Mantegna:**  
 Virgin Enthroned with Angels.  
**Massacio:**  
 Tribute Money.  
**Michael Angelo:**  
 Prophets. (Sistine Chapel.)  
 Sibyls. (Sistine Chapel.)  
**Palma Vecchio:**  
 St. Barbara.  
**Raphael:**  
 Burning of the Castle.  
 Foligno Madonna.  
 Holy Family.  
 Justice. Philosophy. Poetry.  
 Liberation of St. Peter.  
 Madonna of the Cardinal.  
 Madonna of the Chair.  
 Madonna of the Fish.  
 Madonna of the Grand Duke.  
 Sistine Madonna.  
 Parnassus. (Detail.)  
 Portrait of Himself.  
 School of Athens.  
 Sibyls.  
 St. John in the Desert.  
 St. Cecilia.  
 Two Angels from Baldechino Madonna.  
 Transfiguration. (Details.)  
**Titian:**  
 Bella.  
 Flora.  
 Magdalen.  
 Presentation of the Virgin.  
 The Assumption.  
 Three Graces.  
**Veronese:**  
 Industry.  
 Angel with Mandolin.  
**Verocchio:**  
 Two Angels.

French Art.

**Adam:**  
 The Cat Family.  
**Bastien-Lepage:**  
 Joan of Arc.  
**Bashkirtseff:**  
 The Meeting.  
**Rosa Bonheur:**  
 Ploughing.  
 The Horse Fair.

French Art—Continued.

**Rosa Bonheur—Continued.**  
 Brittany Cattle.  
 Brittany Sheep.  
 Deer in the Forest.  
**Bouguereau:**  
 Little Scholar.  
**Breton:**  
 Song of the Lark.  
**Corot:**  
 Lake Nemi.  
 Spring.  
 The Lake.  
**Daubigny:**  
 Spring.  
**Dagnan-Bouveret:**  
 At the Watering Trough.  
**Dupré:**  
 The Balloon.  
 The Haymakers.  
**Gérome:**  
 The Two Majesties.  
**Greuze:**  
 Child with Apple.  
 Broken Jar.  
**Jacque:**  
 The Sheepfold.  
**Le Brun:**  
 Portrait.  
 Mother and Child.  
**Lerolle:**  
 By the Riverside.  
 Shepherdess and Sheep.  
**Lorrain:**  
 Harbor at Sunset.  
**Marcke:**  
 The Water Gate.  
 A Golden Autumn Day.  
 The Mill.  
**Millet:**  
 The Angelus.  
 The Gleaners.  
 The Shepherdess.  
 The Sower.  
 The First Step.  
 Feeding Her Birds.  
 Feeding the Hens.  
 The Goose Girl.  
**Regnault:**  
 Horses of Achilles.  
**Renouf:**  
 A Helping Hand.  
**Rousseau:**  
 Sunset in Forest.  
**Troyon:**  
 Oxen Going to Work.  
 Oxen Ploughing.

Flemish Art.

**Alma-Tadema:**  
 Reading Homer.  
**Rubens:**  
 Holy Family.  
 Infant Christ and St. John.

## Flemish Art—Continued.

Rubens—Continued.  
 King David with Harp.  
 Portrait of Himself.  
 Portrait of Maximilian I.  
 Van Dyck:  
 Baby Stuart.  
 Children of Charles I.  
 Lord Wharton.  
 Portrait of Himself.  
 Prince Karl.  
 Prince Rupert.  
 Repose in Egypt.  
 William II, Prince of Nassau.  
 Van Eyck:  
 Angel of Annunciation.

## Dutch Art.

Dou:  
 Cat in Window.  
 Soap Bubbles.  
 Hackert:  
 Avenue of Ash Trees.  
 Hals:  
 Jolly Man.  
 Man with Sword.  
 Singing Boy.  
 Hobbema:  
 Avenue of Trees.  
 The Mill.  
 The Water Mill.  
 Mauve:  
 Sheep. Autumn.  
 Sheep. Spring.  
 Potter:  
 The Wolf Dog.  
 Rembrandt:  
 Abraham and Angels.  
 Meeting of David and Absalom.  
 Portrait of Himself.  
 Portrait of Mother.  
 Portrait of Wife.  
 The Mill.  
 The Night Watch.  
 The Polish Rider.  
 Ronner:  
 A Fascinating Tale.  
 The Final Move.  
 Ruysdael:  
 The Mill.  
 Ter Borch:  
 The Concert.

## German Art.

Bodenhansen:  
 Madonna.  
 Durer:  
 Christ in the Temple.  
 The Four Apostles.  
 Hoffman:  
 Worship of the Wise Men.  
 The Childhood of Christ.  
 Holbein:  
 Christine of Denmark.  
 Madonna of the Meyer Family.  
 Portrait of Edward VI.  
 Portrait of Himself.

## German Art—Continued.

Linbach:  
 Wagner.  
 Bismarck.  
 Menzel:  
 A Reader.  
 Meyer von Bremen.  
 The Pet Bird.  
 Plockhorst:  
 The Good Shepherd.  
 Richter:  
 Queen Louise.  
 Schreyer:  
 An Arab.  
 Arabs in the Desert.  
 Halt in the Oasis.  
 Suttermans:  
 Prince of Denmark.  
 Uhde:  
 Christ and the Peasants.

## Spanish Art.

Murillo:  
 Children of the Sheel.  
 Divine Shepherd.  
 Holy Family.  
 Immaculate Conception.  
 Melon Eaters.  
 St. John as a Child.  
 Virgin and Child.  
 Velasquez:  
 Infant Maria Theresa.  
 Portrait of a Youth.  
 Prince Balthazar.  
 The King's Family.

## English Art.

Burne-Jones:  
 Golden Stair.  
 Praise of Venus.  
 Constable:  
 Valley Farm.  
 Cornfield.  
 Crane:  
 The Mower.  
 Dicksee:  
 The Child Handel.  
 Douglass:  
 Ancient Britons.  
 Gainsborough:  
 Blue Boy.  
 Duchess of Devonshire.  
 Mrs. Siddons.  
 Herring:  
 A Scanty Meal.  
 A Society of Friends.  
 Lawrence:  
 Benjamin West.  
 Princess Charlotte.  
 Sir Walter Scott.  
 Landseer:  
 Connoisseurs.  
 Dignity and Impudence.  
 Distinguished Member of the Humane Society.  
 King Charles Spaniels.  
 Saved.  
 Shoeing the Horse.  
 Sleeping Bloodhound.

English Art—Continued.

Leighton:  
Greek Girls Playing Ball.  
Reynolds:  
Age of Innocence.  
Duchess of Devonshire and Daughter.  
Infant Samuel.  
Turner:  
Approach to Venice.  
Slave Ships.  
American Art.  
Alexander:  
Pot of Basil.  
Anderson:  
Foundling Girls.  
Burnes:  
Family Cares.  
Blashfield:  
Christmas Chimes.  
Boughton:  
Evangeline.  
Pilgrim Exiles.  
Pilgrims (Going to Church).  
Priscilla.  
Return of the Mayflower.  
Brush:  
Mother and Child.  
Copley:  
Samuel Adams.  
John Hancock.  
Harrison:  
Amateurs.

American Art—Continued.

Homer:  
Fog Warning.  
Lookout, "All's Well."  
Innes:  
Autumn Gold.  
Landscape.  
McCord:  
Evening in the Harbor.  
Peale:  
George Washington.  
Sargent:  
Prophets' Frieze.  
Carnation Lily, Lily Rose.  
Thayer:  
Caritas.  
Stuart:  
Chief Justice Jay.  
George Washington.  
Martha Washington.  
John Adams.  
Thomas Jefferson  
Trumbull:  
Signing the Declaration of Independence.  
Surrender of Burgoyne.  
Alexander Hamilton.  
Whistler:  
Head of Blacksmith.  
Little Rose.  
Portrait of Mother.

ARCHITECTURE AND SCENERY.

Egypt.

Nile and Pyramids.  
Pyramids of Cheops.  
Pyramids and Desert.  
Temple of Karnak.  
Temple of Philae.

Greece.

Erechtheum.  
Parthenon.  
Temple of Minerva.  
The Acropolis.

Italy.

(Florence.)

Baptistry.  
Campanile.  
Cathedral and Campanile.  
Loggia dei Lanzi.  
Pitti Palace.  
Ponte Vecchio.

(Milan.)

Cathedral.  
(Rome.)

Aqueduct of Claudius.  
Arch of Constantine.  
Arch of Titus.  
Arch of Septimius Severus.  
Appian Way.  
Baths of Caracalla.  
Capitol.  
Castle and Bridge of St. Angelo.  
Colosseum.  
Forum and Arch of Titus.

Italy—Continued.

(Rome)—Continued.

Forum and Trajan's Column.  
Forum and Temple of Antonius.  
Grand Panorama of Rome.  
Interior of St. Paul's.  
Palace of the Cæsars.  
Palace of Tiberius.  
Pantheon.  
Temple of Vesta.  
Temple of Peace.  
Trajan's Column.  
Trajan's Column and Arch of Titus.  
Vatican.

(Venice.)

Bridge of Sighs.  
Ducal Palace.  
Grand Canal.  
Rialto.  
St. Mark's.  
Church of the Salute.

(Verona.)

Amphitheater.  
Alhambra.  
Court of Lions.  
Court of Myrtles.  
Hall of the Ambassadors.  
Mosque of Cordova.

France.

Amiens Cathedral.  
Notre Dame.  
Rheims Cathedral.  
Rouen Cathedral.

Spain.

## Germany

Cologne Cathedral.  
Heidelberg Castle.

## Turkey.

St. Sophia.

## England.

Ann Hathaway's Cottage.  
Durham Cathedral.  
Houses of Parliament.  
Lincoln Cathedral.  
Peterboro Cathedral.  
Shakespeare's House.

## England—Continued.

The Tower.  
Warwick Castle.  
Windsor Castle.  
Westminster Abbey.

## United States.

Capitol at Washington.  
Niagara Falls.  
Lower Falls, Yellowstone Park.  
Washington's Home, Mount Vernon.  
Yosemite Valley, El Capitan.  
Yosemite Valley, Mirror Lake.

## FAMOUS MEN AND WOMEN.

Bancroft, George.  
Columbus, Christopher.  
Franklin, Benjamin.  
Lincoln, Abraham.

Longfellow, Henry W.  
Washington, George.  
Washington, Martha.  
Whittier, John G.

## PHOTOGRAPHS OF STATUARY.

Hermes of Praxiteles.  
Lion on Eagle's Back. (Thorwaldsen.)

Lion of Lucerne.  
Memnon of Thebes.

## UNCLASSIFIED.

Colored Lithographs.  
Teubner Prints.  
Boightlander Prints.  
Riviere Prints.  
Mucha Prints.  
Dutch Prints.

English Prints.  
Fitzroy Pictures.  
Color Plates from Book, Carton Moore Park.  
Landscape Reproductions, Thaulow.  
Landscape Reproductions, Boecklin.

Refer to complete catalogue of P. P. Caproni & Bro.

## CASTS.

516. Boy and Goose.  
522. Suppliant Youth.  
531. Boy Extracting Thorn.  
2511. Cherub and Dolphin.  
2505-2506. Cherubs with Shields.  
4037. Hypnos.  
5151. Boy.  
5152. Infant Christ.  
5153. Young Girl.  
5154. St. John.  
5155. Young Girl.  
5163. Infant Christ.  
5166. Dante.  
5193. David.  
5400. Longfellow.  
5415. Bancroft.  
5422. Hawthorne.  
5424. Irving.  
5433. John Adams.  
5470. Columbus.  
5446. Franklin.  
5448. Lincoln.  
5449. Lincoln.  
5457. Washington.  
5170. Mercury.  
6017. Whittier.  
7000-7003. The Parthenon Frieze.  
7064. Nike.  
7074-7075. Chariot Race.  
7062. Antinous.

7085. Dancing Girls.  
7086. Eleustian Relief.  
8350-8359. The Cantoria Frieze.  
8362. Bambino.  
8363. Bambino.  
8372. Madonna and Child.  
8373. Madonna and Child.  
8383. Madonna and Child.  
8384. Madonna and Child.  
8403a. Cherub.  
8404a. Cherub.  
8405. Cherub.  
8407a. Cherub.  
8408. Cherub.  
8408a. Cherub.  
8411. Madonna and Child.  
10007. Triumph of Alexander.  
10009. Flight of Night.  
10014-10019. Nymphs.  
10024-10025. Cupids.  
10028-10029. Cupids.  
10041. Cupids Singing.  
12800. Bear Dancing.  
12804. Elephant Walking.  
12805. Elephant Running.  
12806. Lion.  
12819. Tiger.  
18901. Frieze.  
18909. Torch Holder.  
18984. Gothic Spandril.

## F. MATERIALS AND EQUIPMENT.

Materials for the work in drawing were necessarily limited in the early days. Paper was used sparingly and work of the pupils was confined to slate pencil and slate or blackboard, neither surface especially adapted to acceptable qualities of technic. High-school departments, however, and teachers of drawing were able to procure an extensive line of material available for the more advanced work, drawing which aimed for the most part at the higher branches of art, such as painting, sculpture, or architecture.

A partial list of such material, taken from Walter Smith's "Art Education," 1873, follows:

Simpson's 12 plates of Outlines for Blackboard. 7s.  
Delarues' Free-hand Outlines of Common Things, 48 subjects. 5s.

## Copies for Outline Drawing.

Delarues' Outlines of Animals. 1s.  
Dyce's Elementary Outlines of Ornament. 5s.  
Morghen's Outlines of the Human Figure, 20 plates. 3s. 4d.  
Albertollis' Foliage, 4 plates (size 20 by 8 inches). 5d.

## Copies for Shaded Drawing.

Renaissance Rosette, unmounted. 3d.  
Ornament from a Greek Frieze, unmounted. 3d.  
Early English Capital, unmounted. 4d.  
Renaissance Scroll, Tomb in S. M. Dei Frari, Venice. 1s. 4d.

## Architectural and Machine Drawing.

Selected Examples of Machines of Iron and Woodwork (French), by Stanislas Petit.  
. 60 sheets, at 13s. per dozen. £3 5s.  
Architectural Studies, by I. B. Trifou, 20 plates. £1 13s. 4d.  
Engineer and Mechanists Drawing Book, 71 plates. £1 12s.  
Laxton's Examples of Building Construction in Divisions. 10s.

## Colored Examples.

A small diagram of color, unmounted. 9d.  
Redgrove's Manual and Catechism in Color. 9d.  
Two Plates of Elementary Design. 1s.  
Cotman's Pencil Landscapes (nine), set, mounted. 10s.

## Solid Models, etc.

Slip, two set squares and T square. 5s.  
Elliott's case of instruments. 6s. 9d.  
Elliott's Prize Instrumental Case with 6-inch compasses, pen and pencil leg, two small compasses, pen and scale. 18s.  
A box of models for parochial schools. £1 4s.  
Mr. Binn's Models for Illustrating the Elementary Principles of Orthographic Projection as applied to Mechanical Drawing, in box. £1 10s.  
Three Objects of Form in Pottery (Minton's): Indian Jar, 5s.; Celadon Jar, 3s. 9d.; bottle, 5s.

Five selected Vases in Majolica-Ware (Minton's) each 8s. 6d., £1 2s. 6d.

Three selected Vases in Earthenware (Wedgewood's) 4s. 9d., 4s. 9d., and 6s.

Books, etc., followed, mainly on perspective, linear drawing, and geometry.

To-day charts and outline drawings for copy are seldom in evidence. A number of excellent textbooks are published and are not only graded, but adapted to special phases of art teaching and the different seasons of the year. The illustrations are examples of the finest of reproductions in outline, light and shade, and color, from original drawings by the best of American artists. Loose-leaf texts are also published by various houses and assist materially in supplementing the teachers' outlines. With the abolition of the slate, papers adapted to various media were soon forthcoming. The present supply list of the city supervisor contains from 4 to 10 or more different kinds and colors of drawing paper. Such lists include:

White paper for pencil, crayon, or water color.  
 Colored paper for pencil, crayon, or water color.  
 Japanese or onion skin paper for brush or tracing.  
 Bogus paper for drawing or handwork.  
 Construction papers in colors for handwork.  
 Stencil paper.  
 White paper for mechanical drawing.  
 Duplex paper for mechanical drawing.  
 Cross section papers.  
 Charcoal paper.  
 Colored papers for mounting.  
 Blotting-papers for mounting.  
 Cardboard for mounting.  
 Transfer paper and tracing cloth and paper.  
 Blue print paper.

Following the advent of manual training, arts and crafts, and elementary handwork, many new mediums came into use which include:

Cardboard for box, folio, etc., construction.  
 Clay for modeling and pottery.  
 Plastercine for modeling and pottery design.  
 Wood for whittling or heavier bench work.  
 Brass and copper for crafts work.  
 Reeds and raffia for basketry.  
 Yarns, strings, and jute for weaving.  
 Textiles for stenciling or appliqué.  
 Leather for tooling, etc.

Advanced classes in well-equipped high schools use in addition to the above, silver, enamels, and semiprecious stones for work in jewelry. Vocational courses employ all mediums applicable to the trade or vocation.

Additional mediums which are in daily use include pencils of various grades, from very soft sketching pencils to very hard pencils

used for mechanical drawing, colored crayons of a more or less waxy composition, colored chalks, charcoal, and water color, both in tubes and cakes. "Tempera" water colors (opaque colors) have very recently been placed before the pupils and require colored papers for use. These are a very effective and quick working medium, which were first introduced from foreign countries. Boxes for water colors vary from the "three-color box," containing what has been termed "standard red, yellow, and blue," to boxes containing six, eight, and more colors. There is but little difference in the various makes of school colors, though their qualities of permanence are necessarily greatly inferior to those in professional use. Brushes of camel's hair are usually supplied with each box.

The Japanese have been instrumental in placing many useful and inexpensive materials before our schools for use in drawing. Such materials are brushes, wood block prints in black and white and color, stencils, books of nature drawing and designs, papers for drawing and mounting and decorative vase forms.

The following materials are also in constant use in the modern school system:

Scale rules.	Erasers.	Models.
Compasses.	Scissors.	Dyes.
Drawing "kits" (boards with T square and triangle).	Looms.	Stencil brushes.
	Water pans.	Stencil knives.
	Paste.	

In the average grades nothing but movable equipment is employed for the drawing work. High schools, however, with special teachers and special courses provided equipment to conform with the requirements of advanced work. Rooms are architecturally designed to meet lighting and other conditions for such study. Cabinets especially designed for holding casts, still life; portfolios, drawing papers, drawing boards, and individual supplies are installed. Special adjustable tables and model stands are provided and in addition casts, pottery forms, and other objects for drawing. Drawing boards, instruments, T square and triangles, blue print frames, and drawing inks are supplied.

In the newer technical and city high schools facilities are offered for courses in the industrial and applied arts. These include metal and jewelry equipment, benches, jewelers' saws, files, blowpipes, vises, burnishers, chasing tools, hammers, etc.; pottery and ceramic equipment, kiln, potter's wheel, molds, cabinets to hold partially completed work and materials for glazing and decorating; textile equipment, looms, and necessary material for weaving. Courses in art advertising, millinery, and custom design, interior decoration and commercial design include equipment already enumerated and in addition material from which to obtain ideas. For this purpose schools in a



few localities have come to realize the value of the museum and such objects as stuffed animals, fishes, birds, etc.; and objects of ancient craftsmanship are borrowed.

The need of these special courses in the industrial and applied arts is constantly growing, and with them must come the school museum, a feature which should be in the equipment of every school, with or without special courses.

Two magazines are published which are of direct help to the work of the public schools—the "School Arts Magazine," edited by Henry Turner Bailey, of North Scituate, Mass., formerly Massachusetts State agent for drawing, and the "Manual Training Magazine," edited by Charles S. Bennett, director manual arts department, Bradley Polytechnic Institute, of Peoria, Ill. A magazine for vocational schools, called "The Vocational Magazine," has been recently published by Mr. Bennett. This is, however, of less direct help along art lines.

The School Arts Magazine, originally issued in September, 1901, as "The Applied Arts Book," and edited by Frederick H. Daniels, became "The School Arts Book" in 1903. It was again changed in name, and this time in size, in 1912, and is called "The School Arts Magazine." It is a finely illustrated publication, filled with practical and timely suggestions covering all phases of public school art work, and published 10 months in the year. It is adapted to both grade teacher and supervisor and is of great value in the schoolroom itself.

"The Manual Training Magazine," originally published four times a year, is now issued in October, December, February, April, and June. It is a well-printed magazine containing helpful problems and excellent articles on the manual arts in the public schools. It is especially adapted for the use of the manual training teacher and supervisor of elementary handwork.

Following are statements showing lists of supplies prescribed for San Francisco and for Boston:

We use no drawing books and the board of education supply no models or charts. White, bogus or onionskin paper is supplied to the pupils, but they purchase their own color media.

All drawings are done in color or brush and ink, the lead pencil being used only for the preliminary exercises.

Water colors are not obligatory, but we used in some schools, generally grammar schools, the color media in general use, in an eight-color box of crayograph in Grades I, II, and III.<sup>1</sup>

#### LIST OF SUPPLIES AS OUTLINED FOR BOSTON.

Equipment is replenished in September on the basis of principals' reports for which blanks are furnished in March.

Grades I, II, and III are furnished scissors (4½-inch), one pair to two pupils; to be used in sets, each set shared by two classes.

<sup>1</sup> Miss Katherine M. Bell, supervisor, San Francisco, Cal.

Supplies are furnished in September and January on the basis of principals' reports for which blanks are furnished in March and September.

The list shows the various articles supplied, and the annual quota of each.

## GRADE I.

Tubes of paste, 2 to 20 pupils.  
 Drawing paper, gray, 6-inch by 9-inch, 100 sheets to each pupil.  
 Drawing paper, white, 6-inch by 9-inch, 16 sheets to each pupil.  
 Drawing paper, gray, 12-inch by 18-inch, 1 sheet to each pupil.  
 Printed illustrations (Santa Claus), 1 to each pupil.  
 Pencils, Dixon's Special Black, No. 312, 1 to each pupil.  
 Pasteboard rules, 1 to each pupil.  
 Colored crayons, 2 boxes to 3 pupils.<sup>1</sup>

## GRADE II.

Tubes of paste, 2 to 20 pupils.  
 Drawing paper, gray, 6-inch by 9-inch, 160 sheets to each pupil.  
 Drawing paper, white, 6-inch by 9-inch, 16 sheets to each pupil.  
 Drawing paper, gray, 12-inch by 18-inch, 1 sheet to each pupil.  
 Printed illustrations (Santa Claus), 1 to each pupil.  
 Pencils, Dixon's Special Black, No. 312, 1 to each pupil.  
 Pasteboard rules, 1 to each pupil.  
 Paper fasteners, 4-inch, 1 box to 400 pupils.  
 Envelopes, 8-inch by 11-inch, 1 to each pupil.  
 Colored crayons, 1 box to 2 pupils.<sup>2</sup>  
 White gummed stars, 1 box to 7 pupils.  
 Balls of gray twine, 1 ball to 50 pupils.

## GRADE III.

Tubes of paste, 2 to 20 pupils.  
 Drawing paper, gray, 6-inch by 9-inch, 160 sheets to each pupil.  
 Drawing paper, gray, 9-inch by 12-inch, 4 sheets to each pupil.  
 Drawing paper, white, 6-inch by 9-inch, 16 sheets to each pupil.  
 Drawing paper, white, 9-inch by 12-inch, 4 sheets to each pupil.  
 Printed illustrations (flags), 1 to each pupil.  
 Tracing paper, 6-inch by 9-inch, 4 sheets to each pupil.  
 Pencils, Dixon's Special Black, No. 312, 1 to each pupil.  
 Pasteboard rules, 1 to each pupil.  
 Balls of gray twine, 1 to 50 pupils.  
 Bristol board, gray, 5 $\frac{1}{2}$ -inch by 7-inch, 2 sheets to each pupil.  
 Envelopes, 8-inch by 11-inch, 1 to each pupil.  
 Colored crayons, 1 box to 2 pupils.<sup>2</sup>

## DRAWING.

*Grades IV, V, VI, VII, VIII.*

Water-color brushes, 1 to each pupil.  
 Water-color boxes, long, with red, blue, yellow, and black, 1 to 2 pupils.  
 Water cups, 1 to 2 pupils.  
 Pairs scissors, 4-inch (Grades VI to VIII), 1 to 2 pupils.  
 In grades IV and V use 6-inch manual training scissors (4-inch in girls' schools), see Manual Training.  
 Atomizer (for teachers of Grade VIII), 1 to group of classes.

## MANUAL TRAINING.

*Cardboard construction—Grade I V.*

Pairs scissors, 6-inch (for drawing also), 1 to 2 pupils.  
 Rules, 4-inch, 1 to 2 boys.  
 Rules, 7-inch, 1 to 2 boys.  
 Triangles, 1 to 2 boys.  
 Compass attachments, 1 to 2 boys.  
 Conductor's punches, 1 to 10 boys.  
 Tryborn's "Cardboard Construction," 1 to class.

*Bookbinding—Grade V.\**

Pairs scissors, 6-inch (for drawing also), 1 to 2 pupils.  
 Rules, 7-inch, 1 to 2 boys.  
 Triangles, 1 to 2 boys.  
 Paste brushes, 1 to 6 boys.  
 Eyelet punches, 1 to 25 boys.

*Weaving—Grade VI.*

Pairs scissors, 4-inch (for drawing also), 1 to 2 pupils.  
 Rules, 7-inch, 1 to 2 boys.  
 Small looms, 1 to each boy.  
 Large looms, as desired.

<sup>1</sup> These crayons with those left over should be sufficient to supply each pupil with a box.  
<sup>2</sup> To be used in sets, each set shared by two classes.

## GRADE IV.

*Drawing.*

Drawing paper, gray, 9-inch by 12-inch, 50 sheets to each pupil.  
 Drawing paper, white, 9-inch by 12-inch, 24 sheets to each pupil.  
 Tubes of paste, 2 to 30 pupils.  
 Pencils, Dixon's B, 141, 1 to each pupil.  
 Cakes of color, red, blue, and charcoal gray, 1 dozen each to 50 pupils.  
 Cakes of color, yellow, 1 dozen to 25 pupils.  
 Erasers, 1 to 2 pupils.  
 Envelopes, 10-inch by 13-inch, 1 to each pupil.  
 Colored crayons, hydraulic pressed,<sup>1</sup> 1 box to 2 pupils.

*Grade IV—Manual training.*

Gray twine, 1 ball to 18 boys.  
 Pencils, Dixon's H, 1 to each pupil.  
 Screenings, 24-inch by 36-inch, green, 1 sheet to each boy.  
 Bristol board, 22-inch by 28-inch, 3 colors, 6 sheets to each boy.  
 Tubes of paste, 1 tube to 4 boys.

## GRADE V.

*Drawing.*

Drawing paper, gray, 9-inch by 12-inch, 50 sheets to each pupil.  
 Drawing paper, white, 9-inch by 12-inch, 24 sheets to each pupil.  
 Tubes of paste, 2 to 30 pupils.  
 Pencils, Dixon's B, 141, 1 to each pupil.  
 Cakes of color, red, blue, and charcoal gray, 1 dozen each to 50 pupils.  
 Cakes of color, yellow, 1 dozen to 25 pupils.  
 Erasers, 1 to 2 pupils.  
 Envelopes, 10-inch by 13-inch, 1 to each pupil.  
 Bristol board, 22-inch by 28-inch, 3 colors, 1 sheet to 5 pupils.  
 Pasteboard mount, 94-inch by 124-inch, 2 sheets to each girl.  
 Colored crayons, hydraulic pressed,<sup>1</sup> 1 box to 2 pupils.

*Manual training.*

Needles, tapestry, 1 paper to 25 boys.  
 Balls, macramé cord (black), 1 ball to 75 boys.  
 Screenings, 24-inch by 36-inch, green, 1 sheet to each boy.  
 Boxes of eyelets, 1 box to 25 boys.  
 Newsboard, 13-inch by 19-inch, 4 sheets to each boy.  
 Vellum de luxe, green, 2 yards to 3 boys.  
 Paper, Frimont's Mills, 2 reams to 60 boys.  
 Lining paper, green, 24-inch by 36-inch, 1 sheet to each boy.  
 Paste, pints, 3 pints to 7 boys.  
 Cover paper, 20-inch by 25-inch, green, 2 sheets to 3 boys.  
 Cotton tape, 1-inch, white (4 yards), 1 piece to 10 boys.  
 Cotton tape, 1-inch, green (12 yards), 1 piece to 30 boys.  
 Lining thread, 1 skein to 25 boys.

## GRADE VI.

*Drawing.*

Drawing paper, gray, 9-inch by 12-inch, 50 sheets to each pupil.  
 Drawing paper, white, 9-inch by 12-inch, 24 sheets to each pupil.  
 Tubes of paste, 2 to 30 pupils.  
 Gray bristol board (54-inch by 7-inch), girls' schools, 1 to each girl.  
 Half tones (8 pictures), 1 to each pupil.  
 Pencils, Dixon's B, 141, 1 to each pupil.  
 Cakes of color, red, blue, and charcoal gray, 1 dozen each to 50 pupils.  
 Cakes of color, yellow, 1 dozen to 25 pupils.  
 Erasers, 1 to 2 pupils.  
 Envelopes, 10-inch by 13-inch, 1 to each pupil.  
 Colored crayons, hydraulic pressed,<sup>1</sup> 1 box to 2 pupils.

*Manual training.*

Raffia, 1/2 plain, 1/2 colored (4 colors), 3 pounds to 20 boys.  
 Warp thread, brown, 1 spool to 6 boys.  
 Rovings, 2 colors, 1 spool to 8 boys.  
 Jute, 1/2 plain, 1/2 colored (3 colors), 1 spool to each boy.  
 Cotton yarn (white), 3 balls to 2 boys.  
 Needles, tapestry, 1 package to group of classes.

## GRADE VII.

*Drawing.*

Drawing paper, gray, 9-inch by 12-inch, 50 sheets to each pupil.  
 Drawing paper, white, 9-inch by 12-inch, 24 sheets to each pupil.  
 Tubes of paste, 2 to 30 pupils.

<sup>1</sup> To be used in sets, each set shared by two classes.

Drawing paper, manila, 9-inch by 12-inch, 9 sheets to each pupil.  
 Tracing paper, 8 $\frac{1}{2}$ -inch by 14-inch, 3 sheets to each pupil.  
 Half tones (3 pictures), 1 to each pupil.  
 Pencils, Dixon's S, 141, 1 to each pupil.  
 Cakes of color, red, blue, and charcoal gray, 1 dozen each to 50 pupils.  
 Cakes of color, yellow, 1 dozen to 25 pupils.  
 Erasers, 1 to 2 pupils.  
 Envelopes, 10-inch by 13-inch, 1 to each pupil.  
 Gray bristol board (8 $\frac{1}{2}$ -inch by 7-inch), girls' schools, 3 sheets to 2 pupils.  
 Colored crayons, 1 box to 2 pupils.

## GRADE VIII.

*Drawing.*

Tubes of paste, 2 to 30 pupils.  
 Drawing paper, gray, 9-inch by 12-inch, 50 sheets to each pupil.  
 Drawing paper, white, 9-inch by 12-inch, 24 sheets to each pupil.  
 Drawing paper, manila, 9-inch by 12-inch, 9 sheets to each pupil.  
 Tracing paper, 8 $\frac{1}{2}$ -inch by 14-inch, 3 sheets to each pupil.  
 Half tones (4 pictures), 1 to each pupil.  
 Pencils, Dixon's S, 141, 1 to each pupil.  
 Envelopes, 10-inch by 13-inch, 1 to each pupil.  
 Gray bristol board (8 $\frac{1}{2}$ -inch by 7-inch), girls' schools, 3 sheets to 2 pupils.  
 Cakes of color, red, blue, and charcoal gray, 1 dozen each to 50 pupils.  
 Cakes of color, yellow, 1 dozen to 25 pupils.  
 Erasers, 1 to 2 pupils.  
 Bottles of Fixatif, 1 to group of classes.  
 Colored crayons, 1 box to 2 pupils.

## G. ART CLUBS AND ASSOCIATIONS.

School art clubs and teachers' associations have acted as a strong influence in furthering art education. Through annual reports, conferences, public meetings, and exhibits they have operated for the welfare of the schools of the country.

Following is a list of such associations and clubs:

## PROFESSIONAL.

*Massachusetts Art Teachers' Association.*—Prior to the establishment by the legislature of the Massachusetts State Normal Art School the idea of a mutual association of art teachers was considered at a meeting called by Walter Smith, the State director, in May, 1873. This organization was effected the following year by the members of the first class of the new school, the object being "the general advancement of art education in America and the mutual improvement of the members." Students fulfilling certain requirements, teachers, and professors were eligible to membership. The association, however, was short-lived, for various reasons. The changing from temporary quarters to a new building, the addition of many more pupils, of less keen appreciation of the early efforts of the first class, and hurried preparation for an extensive exhibit at the Centennial Exposition led to its demise. The outcome of the first year's work resulted in a valuable volume of papers on art educational subjects which had been read at weekly meetings. "The Antifix Papers" were printed for private circulation, copyrighted by the Massachusetts Art Teachers' Association, and comprised 239 pages. The following

<sup>1</sup> To be used in sets, each set shared by two classes.

chapters, suggestive of the contents of the complete volume, show the scope of study and research: Chapter II, fresco, encaustic, etc.; Chapters IV and V, harmony and contrast of color; Chapter XVI, technical terms; Chapter XVIII, botany as applied to industrial art; Chapter XXI, reproductive processes; Chapter XXIII, glass—cast, cut, and engraved; Chapters XXVIII and XXIX, historical schools of painting.

*The Industrial Art Teachers' Association.*—Following a successful meeting of industrial art teachers of the State in 1881, a new organization was formed at Boston in 1882. The general purposes were similar to those of the former association, and annual meetings were held, when papers were read and discussed. This association continued for many years, confined largely to the New England States, until it finally merged into the Eastern Art Teachers' Association.

*National Education Association.*—This largest educational body in the United States meets annually in various parts of the country for the purpose of discussing any and all questions pertaining to educational matters. The department of art education was first organized in 1884 under the leadership of Langdon S. Thompson, now of Jersey City, until finally there was organized one department of art and manual training. Many valuable papers have been contributed by leading art teachers and supervisors, and may be found in the annual reports.

*The Connecticut Valley Art and Industrial Teachers' Association.*—Another New England association was organized under the above name at Hartford, Conn., in October, 1888. It was founded by art teachers of central Connecticut, with the following purposes: To study the relationship of the various branches of the manual arts in education, beginning with the kindergarten; to offer opportunity for discussion and study of methods of art instruction; and to promote public interest in the subject. This association, like the Industrial Art Teachers' Association, continued to hold successful meetings until it merged into Eastern Art Teachers' Association in 1899.

*The Western Drawing and Manual Training Association.*—This association was a direct outcome of the enthusiasm and inspiration created at the World's Fair in Chicago in 1893. In August of that year the Western Drawing Teachers' Association was organized, 11 years later to be combined with the manual training teachers under the above head. The annual meetings, held in May, usually last for three days, with full programs and prominent speakers. A recent feature of the well-attended and spirited meetings has been the annual banquet, a dinner where not only friendships are renewed but where some of the more valuable papers are presented.

The present organization consists of a president, vice president, secretary, treasurer, auditor, council of members, program committee, editorial board of three members, and exhibit committee. Local committees are appointed just previous to the annual meeting.

Extensive exhibits and an annual illustrated report of the proceedings of the meetings are profitable features of the work of the organization.

*Eastern Art and Manual Training Teachers' Association.*—Through the invitation of Solon P. Davis,<sup>1</sup> president of the Connecticut Valley Art and Industrial Teachers' Association, a meeting of art supervisors from the Eastern States was held at Hartford in 1898, at which a new and far-reaching association was formed, the final organization taking place on February 10, 1899. The new Eastern Art Teachers' Association held its first meeting at Pratt Institute and the Institute of Arts and Sciences in Brooklyn on May 25-27 of the same year. Since then well-attended annual meetings have been held in the larger cities of the East. In 1906 a joint meeting with the Eastern Manual Training Teachers' Association in New York prompted the desire and pointed out the need of the amalgamation of the two bodies. This was not perfected, however, until a second joint convention at Pittsburgh in 1908.

In the year previous the Eastern and Western Associations held the first joint conference at Cleveland, Ohio, May 7. The big meeting was highly successful and contributed largely toward the successful combining of the two eastern associations the following year.

The Eastern Association reorganized at its successful meeting held in New York City during Easter week of the year 1913, following the general scheme of the western body and incorporating many features of their old constitution. A highly successful banquet, the floor of a huge armory covered with art, industrial, and commercial exhibits, and well-conducted meetings under the general direction of the president, Alvin E. Dodd, all contributed to an educational conference of no little importance.

*The International Congress for Art, Education, Drawing, and Art Applied to Industry.*—The International Congress for Art, Education, Drawing, and Art Applied to Industry held its fourth convention at Dresden from August 3 to 10, 1912. A brief history of this most important gathering of people interested in art education is worthy of note.

The First International Congress was held in Paris in the year of the 1900 exhibition, after a successful appeal made by the Association Amicale des Professeurs de Dessin de la ville de Paris et du Département de la Seine, to the Commissaire Général de l'Exposition Universelle de 1900. Official permission having been granted, the French professors of drawing thereupon formed themselves into a committee of organization. The first congress was instituted and held between August 29 and September 1, 1900, in the Hotel du Cercle de la Librairie, Boulevard St. Germaine, Paris, under the presidency of M. Paul Colin. Official delegates were sent from 16 different countries (including the United States, Japan, Mexico, and Cuba) and were 21 in number. The United States of America were represented by Miss Sartain,

<sup>1</sup> Principal, Henry Barnard School, Hartford, Conn.

Miss Wheeler, Providence, R. I., and Mr. Charles M. Carter, of Denver, Colo. Altogether there were 576 members of the first congress, and a permanent international committee was formed. In 1904 the Swiss committee approached the international committee with a view to holding the second congress in Berne, Switzerland. This was agreed upon, full arrangements were made, and it was ultimately held in Berne between the 1st and 6th of August, 1904. About 800 persons attended, representing 21 nations. The meetings took place in the Palais du Parlement and in the university. The United States of America were officially represented by Miss Wheeler; Dr. S. T. Dutton, of New York; Prof. A. V. Churchill, of Massachusetts; Mr. Charles M. Carter, of Denver; Mr. Frederick H. Daniels, of Newton, Mass.; Mr. William H. Baldwin, of Hyannis, Mass.; Mr. Solon P. Davis, of Hartford, Conn.; and others.<sup>1</sup>

It was decided to hold the third congress at London in 1908. At the Berne congress a permanent International Federation was instituted with James Hall, North Scituate, Mass.; Charles M. Carter, Denver, Colo., and William Woodward, New Orleans, La., as the American representatives.

This congress was a vast improvement over the other meetings, and under the organized direction of the International Federation covered an interesting and important field of discussion. The meetings were held from August 3 to 8, 1908, in the great hall of the University of London. The exhibition, covering 60,000 square feet of wall space, was opened on July 27 by Her Royal Highness the Princess Louise, Duchess of Argyle, and remained open until August 22. The membership was increased to 1,810, and 38 countries were represented.

The official representatives of the fourth congress were Mr. James Frederick Hopkins, of Boston, Mass.; Mr. John S. Ankeney, of Columbia, Miss.; and Mr. Ernest A. Batchelder, of Pasadena, Cal. Housed in three large buildings in an exhibition park, 24 different countries displayed 99 exhibits. The first day was made memorable by the presence of His Royal Highness Prince Johann Georg, who opened the largest congress yet, more than 2,200 members registering.

The fifth congress, with Royal Bailey Farnum, Albany, N. Y., chairman, Charles A. Bennett, Peoria, Ill., and Robert A. Harshe, Stamford, Cal., as the American representatives, will be held in Paris, 1916, in conjunction with a World's Exposition of Arts and Crafts.

*The Council of Supervisors of the Manual Arts.*—In May, 1901, a body of 10 supervisors of drawing and directors of art departments gathered at Hartford, Conn., for the purpose of forming an association which should stand for professional advancement. Members of this council pledged themselves to "study intensively different phases of the arts and to contribute the results of these studies to the council's Yearbooks."

<sup>1</sup> From first semiannual report of the British and American Mutual Correspondence Association.

The council, originally initiated by Dr. Haney, of New York, grew in numbers and power and each publication proved one of the most important additions to the literature of the manual arts. All articles were published in the Yearbook in advance of the meeting and no papers were read at that time. Notices of the meeting were sent out some weeks in advance, that those appointed to discuss papers might have opportunity to read them with care. The meetings then consisted of formal and general discussion. Membership was limited to 40 active and 100 associate, each active member contributing to the Yearbook. Seven volumes were published in all and were in such demand that when the council disbanded at Philadelphia in 1911 the first two volumes were out of print. Such bodies of interested workers banded together for intensive work should and do warrant continuance, and it is to be hoped that similar organizations may spring up later. The council of supervisors, however, served a timely need and will continue their good work through their lasting publications.

*The American Federation of Arts.*—The American Federation of Arts was organized in May, 1909, in Washington, D. C., for the following purpose:

"To increase the appreciation of art, cultivate taste, and improve civic conditions." It is "an association of institutions, organizations, and individuals, the head office at Washington, D. C., serving as a general bureau of information." Means employed to fulfill its purposes include traveling exhibits, lectures with slides, a monthly magazine called *Art and Progress*, and the *American Art Annual*, the last published at the New York office. Among its standing committees is one for art in public schools. Annual meetings are held in May.

#### LOCAL ORGANIZATIONS.

The following local organizations have been listed mainly from the "*American Art Annual*," Vol. X, Florence N. Levy, editor, and all such are starred:

\**Buffalo Manual Arts Teachers' Association.*—An organization of manual arts teachers of the department of public instruction, Buffalo, N. Y. Five meetings held during the school year.

*Buffalo School Arts Association.*—One of the best means to create interest in art activities is to bring to your teachers and their communities problems in which the art element is an important factor. Whether it be related to the home, to industry, or to civic improvement, it must in some way be of value to them in their everyday life.

It was with this thought that the Buffalo School Arts Association was organized in 1911 by C. Valentine Kirby, the membership being made up of teachers and others interested in furthering the interests of art education in the schools.

<sup>1</sup> *American Art Annual*, Vol. VIII, 1910-11, Florence N. Levy, editor.



The object of the association is to advance art education in the public schools of the city of Buffalo and their environments, by means of lectures, exhibitions, cooperation with the Fine Arts Academy and the Albright Art School in the training of the young to the appreciation of the fine and applied arts.

The Albright Art School offers through competitive examination five scholarships for talented pupils who graduate from the Buffalo public schools and desire to continue the study of fine and applied arts. The association is also a chapter of the American Federation of Arts. The dues are 50 cents a year, and the membership is 650.

During the coming year a series of illustrated lectures will be given in the various high schools. The subjects will be selected to meet the demand of the teachers of the city, who are anxious to secure a better understanding of the fine and industrial arts as applied to the public schools, also subjects related to the home and civic art. Visits will be made to the Albright Art Gallery, where various speakers will explain the exhibits and conduct the students through the galleries. A quarterly bulletin will be published for members and for use in the public schools, to keep the interest aroused and to bring to the members and students the progress that art is making in their city and in other cities.

Such an association we feel will create a new interest in art education among teachers, students, and the general public.<sup>1</sup>

\**Chicago School Arts Association.*—Bimonthly meetings.

\**Chicago Public School Art Society.*—Organized in 1894; among other activities decorates the public schools. Traveling exhibits of paintings are maintained in cooperation with the Chicago Society of Artists and board of education; art libraries and photographs are loaned to schools.

\**Columbus Public School Arts Club.*—Meetings held in Carnegie Library on the evening of the third Tuesday of each month, Columbus, Ohio.

\**Connecticut Manual Arts Association.*—Organized in 1908; members meeting in April; joint meeting with school-teachers' association in October. Circulates a State traveling exhibit.

\**League for the Decoration of the Public Schools of the District of Columbia.*—Organized in 1909 under auspices of the Washington Society of the Fine Arts. Its object is to improve the general aspect of the schools, and thus cultivate taste and upbuild appreciation for beauty manifested through art. It has completely decorated one building and parts of others.

\**Evanston Public School Art Society.*—Organized in 1901 to further the interests of Evanston, Ill.

*Hartford Supervisors of Art Instruction in Public Schools, Hartford, Conn.*

\**Houston Public School Art League, Houston, Tex.*—Organized in 1900; annual meeting in April; monthly meetings are held. Circulates photographs, casts, and original paintings in schools.

\**Illinois Manual Arts Association.*—Organized in 1903; annual meeting in March.

\**Iowa Manual Arts Association.*—Organized in 1909; annual meeting in March.

\**Kansas Manual Arts Association.*—Annual meeting in October.

\**Louisiana Art Teachers' Association.*—Organized in 1899; monthly meetings, November to June.

\**Maine Teachers' Association.*—Drawing and manual training department. Annual meeting in October.

\**Massachusetts Normal Art School Alumni Association.*—Organized in 1888; annual meeting in April. Meetings held in January and June, Boston, Mass.

\**Western Massachusetts School Art League.*—Organized in 1910; three meetings yearly.

<sup>1</sup> Harry W. Jacobs, president and director of art education, Buffalo, N. Y.

\* *Michigan Industrial Science and Arts Association.*—Meetings November, February and May.

\* *Minneapolis Manual Arts Club.*—Bimonthly meetings.

\* *Missouri Association of Applied Arts and Sciences.*—Organized in 1908; annual meeting in November.

\* *Teachers Art Club of New Haven.*—Organized in 1905; annual meeting in May. Stated meetings September, November, January, and March.

*New York State Art and Industrial Teachers' Association.*—Meets annually with State association in November.

*New York State Drawing Conferences.*—Seventeen conference bodies representing counties of the State. Organized by State specialist, Royal B. Farnum, in 1911. Hold annual meetings for discussion of school drawing and manual arts.

*School Art League of New York City.*—The school arts league was organized early in the year 1911, and is a development of the art committee of the public educational association.

The purpose of the school art league is to foster the interests of art education in the public schools of the city of New York, and to secure to this end the cooperation of other societies. The league is designed as an organization for all interested in the creation of beautiful school surroundings, in the training of the young to the appreciation of fine and of applied art, and in the preservation and development of talent in gifted pupils.

The school art league offers, through competitive examinations, several industrial art scholarships for talented pupils who graduate from the art classes of the high schools and desire to continue the study of design in professional schools. Other cities offer many such scholarships, but these are the first open to the graduates of the New York City public schools.

A committee on schoolroom decoration is placing casts and pictures in the schools as these are secured by special contributions.

Lectures have been given in the Metropolitan Museum of Art for the members of the society, and for elementary and high-school pupils. Those attending represent all the high schools of the city, and some come many miles to be present.

In 1909 a bronze medal for fine craftsmanship was established. This medal was designed by Victor D. Brenner, and has since been awarded semiannually, at the close of each school term, for the best piece of work done by a member of the graduating class in each of the school workshops. These shops now number nearly 200.

Visits to art galleries are conducted for high-school pupils and teachers. Free admission has thus been secured by the league for pupils to visit the National Academy of Design, Architectural League, and special Metropolitan Museum exhibitions. At each the pupils are met, the exhibit is explained, and the students conducted by their teachers through the galleries.

The School Art League provides for the representation of affiliated societies among its officers. Any organization paying \$25 annually is entitled to be represented by a member elected or appointed to serve as a delegate member upon the board of managers. In no other way can a sum laid aside by any society for art education be made to secure so many advantages for so large a number.

Members of the School Art League receive cards for all its functions. During 1911-12 there were 22 lectures, 5 gallery visits, and 4 receptions. The annual meeting is in November; the executive committee meets monthly. There are five classes of members, all entitled to vote and hold office. The annual dues are: Active members, \$1; contributors, \$5; affiliated societies, \$25; patrons, \$50; donors, who give \$1,000.

\* *School Crafts Club, New York City.*—Organized in 1902; annual meeting in March; stated meetings in November, January, and May.

- New York High School Drawing Teachers' Association.*
- \**Ohio Art and Manual Training Teachers' Association.*—Annual meeting in November.
- \**Oklahoma Art League.*—Organized in 1910; circulates exhibits.
- \**Oklahoma Manual Arts Association.*—Organized in 1909; annual meeting during Christmas holidays.
- \**Manual Arts Association of Allegheny City—Pittsburgh.*—Organized in 1905; annual meeting in May. Monthly meetings.
- \**Teachers' Art Club, Pittsburgh.*—Organized in 1902; annual meeting in March. Stated monthly meetings.
- \**St. Paul Manual Arts Association.*—Monthly meetings first Wednesday.
- \**Southern Drawing Teachers' Association.*—Annual meeting in December.
- Sunshine Club, Syracuse.*—Membership unlimited if candidate signifies intention to assist in making the city beautiful. Practically all the school children belong and further the cause by means of letters on beautifying and improving city conditions written to the supervisor and forwarded to city officials. City improvement is part of the study in art education. Club started in 1910 by Supervisor Miss M. Matilda Mielt.
- \**Middle Tennessee Educational Association.*—Art and manual training section. Annual meeting in April.
- \**Texas Teachers' Association.*—Industrial art section. Meetings in December.
- \**Waco Art League.*—Organized in 1899; monthly meeting, with annual meeting in May. Circulates exhibitions.
- \**Public School Art Teachers' Association, Washington, D. C.*—Organized in 1910; annual meeting in April. Social meetings and talks by members.
- \**Wisconsin School Arts and Home Economics Association.*—Organized in 1909. Branch State teachers' association.
- \**Worcester Public School Art League.*—Organized in 1895; annual meeting, January. Stated monthly meetings. Work largely advisory. Money prizes offered for improvement in school yards. Places pictures, pottery casts, etc., in schools.

The value of such organizations can not be overestimated and their cooperation and assistance in aiding the work of the teacher and supervisor has lightened the burden materially.

The present condition of art in the public schools is indeed gratifying, and the prospect for the future is increasingly bright. Real work in the industrial arts, intensive courses in art as a cultural and liberalizing study, and the hearty support of not only local clubs and societies, but of industrial and business men, with generous assistance from educational boards, will soon tend to bring the work into a position of supreme importance, a condition of long standing in foreign countries and a situation demanding national support in the United States.

TABLE 1.—Drawing in State school systems.

States.	Re-quired by law.	Year when first re-quired.	By what means encouraged.	Scholarships main-tained in—	Specialists or super-visors employed.	Salaries of specialists.	Drawing taught in reformatory institutions.	
	1	2	3	4	5	6	7	8
Alabama.....	No.		Optional study in the schools.....	Two normal univer-sities and all high schools.	Specialist approved by board of edu-cation.	\$100 to \$130 per month.	To be put in.	
Arizona.....	No.		Included in course of study—State Normal School—Teachers' Training Department of State University. Institute lectures, picture exhibits, art literature.	Normal school and State University.	No.		Yes.	
Arkansas.....	No.	1880	Required in elementary schools, optional in second-ary schools		No	\$2,000	Yes.	
California.....	Yes	1888	Included in course of study in many cities and towns and in all the higher institutions.		No		No.	
Colorado.....	No.		Special teachers in schools.		Some towns have specialists.		No.	
Connecticut.....	No.		Cities of the first class contract with art association for instruction of the school children and teachers.		No		Yes.	
Delaware.....	Yes		Official course of study and examination for pupils		Yes	\$80 to \$150 per month.	To limited ex-tent.	
Dist. of Columbia.....	Yes		State normals and State University maintain courses in penmanship and drawing		No		To limited ex-tent.	
Florida.....	No.		Daily program in all the grades.....	Each of the approved high schools.	Specialist, unless mem-bers of the faculty have had special training.	\$70 per month.	No.	
Georgia.....	No.		Part of accepted course in practically all schools.		No		Yes.	
Idaho.....	No.		Emphasized in the institute and enters into pro-motion of pupils. Scholarships, \$6,000.		Supervisor sometimes employed by county	\$1,000	Yes.	
Illinois.....	No.	1906	By Department of Art Education, through Mas-sachusetts Normal Art School, and indirectly through 9 other normal schools; bulletins, con-ferences, and field work.	Instruction free to res-idents of Massachu-setts.	Director, faculty of 20, and 12 normal school instructors.	Salaries vary.	Yes.	
Indiana.....	No.							
Iowa.....	No.	1900						
Kansas.....	No.							
Kentucky.....	No.							
Louisiana.....	Yes							
Maine.....	No.							
Maryland.....	Yes	1801						
Massachusetts.....	Yes	1870						

DRAWING AND ART IN SCHOOLS.

TABLE I.—Drawing in State school systems—Continued.

States.	Re- quired by law.	Year when first re- quired.	By what means encouraged.	Scholarships main- tained in—	Specialists or super- visors employed.	Salaries of specialists.	Drawing taught in secondary institutions.
	3	2	4	5	6	7	8
Michigan.....	No.		Special courses in normal schools.		Seven in State normal schools and other State educational institutions.	\$1,800	Yes.
Minnesota.....	No.		Extensive courses outlined in the State course of study for rural and graded schools.		No.		Yes.
Mississippi.....	No.		Required in State normal schools and in examinations for certificates.		No.		Yes.
Missouri.....	No.	1907	Required to be taught in the schools.		No.	\$100 per month.	
Montana.....	No.		By teaching it in graded schools.		Yes.		No.
Nebraska.....	No.	1878	Locally in high schools; teachers are employed in secondary schools; subject for admission to training classes, training schools, and State normal schools.		Yes (1)	\$2,500	Yes.
Nevada.....	Yes.		Teachers in drawing employed in 73 cities and 48 township, village, and special districts.		No.		Yes.
New Hampshire.....	No.		Optional study taught in most town schools.		No.		Yes.
New Jersey.....	No.		Taught in the State public schools.		No.		Yes.
New Mexico.....	No.		Conditional State aid, State approval, State scholarships (\$7,000) promotion by State education department, general propaganda of educational organizations.	Rhode Island School of Design.	No.	\$1,200	No.
New York.....	Yes.		No effort made to encourage art instruction.		No.		Yes.
North Carolina.....	Yes.		By union superintendents and teachers and regular instructors in the larger cities.		No.		Yes.
North Dakota.....	No.				No.		Yes.
Ohio.....	No.				No.		Yes.
Oklahoma.....	No.				No.		Yes.
Oregon.....	Yes.				No.		Yes.
Pennsylvania.....	No.				No.		Yes.
Rhode Island.....	No.				No.		Yes.
South Carolina.....	Yes.				No.		Yes.
South Dakota.....	No.				No.		Yes.
Tennessee.....	No.				No.		Yes.
Texas.....	No.				No.		Yes.
Utah.....	Yes.				No.		Yes.
Vermont.....	Yes.				No.		Yes.

	Yes. No.	Optional, but almost always taught.	In several cities Supervisors in many districts. Supervisor in most cities and towns.	Yes. To be put in Yes.
Virginia.....	No.	Optional, but almost always taught.	.....	.....
Washington.....	No.	Prescribed course of study for State.	.....	.....
West Virginia.....	No.	Employment of special supervisors in cities.	.....	.....
Wisconsin.....	No.	Prescribed course of study.	.....	.....
Wyoming.....	No.	Prescribed in course of study.	No.	Yes.
Arizona.....	Yes.	Instruction in all elementary and intermediate	No.	No.
Hawaii.....	Yes.	schools, school shops, and trade schools.	No.	No.
Philippine Islands.....	Yes.			
Porto Rico.....	No.			

*Handwritten mark resembling a stylized 'S' or '9'.*

TABLE II.—Courses for training teachers of art.

(Note.—In column 4, T. is abbreviation for Teachers and S. for Supervisors; in columns 24 and 25, X indicates "Yes" and 0 "No.")

Location.	Institution.	Years in course.	Course designed for—	Drawing and painting.		Design.		Craft work.		Modeling.		Methods.		History of art.		History of education; pedagogy; psychology.		Anatomy; perspective; color theory; composition.		Practice in teaching.		Degrees conferred.	Summer courses offered.	Night classes.
				Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
ALABAMA.																								
Florence.....	State Normal College.....	2	T. S.	14	28	1	8	5	24							5	36			5	36			
Livingston.....	Alabama Normal College.....	4	T. S.	10	36	3	36	2	36							4	36			4	36			
Normal.....	Alabama Normal College.....	1	T.	24	36	2	36	2	36							2	36			2	36			
Tuskegee.....	Tuskegee Normal and Industrial Institute.....	3	T. S.	2	10			9								2	32	1	32	1	32			
ARIZONA.																								
Tucson.....	Tempe Normal School of Arizona.....	1	T.	2	120											5	20	2	120	2	20			
ARIZONA.																								
Conway.....	Arkansas State Normal School.....	1	T.	24	36			1	12															
Fayetteville.....	University of Arkansas.....	2	T.	2	40	2		2																
CALIFORNIA.																								
Berkley.....	Oakland Kindergarten Training Class.....	1	T. S.	24	10					24	10					5	20							
Chicago.....	State Normal School.....	1	T. S.	4	26	4	10	4	40	4	10	4	20	4	10			4	20					





TABLE II.—Courses for training teachers of art.—Continued.

Location.	Institution.	Years in course.	Courses designed for—	Drawing and painting.		Design.		Craft work.		Modeling.		Methods.		History of art.		History of education: pedagogy, psychology.		Anatomy, perspective, color theory, composition.		Practice teaching.		Degrees conferred.	Summer courses offered.	Night classes.
				Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.			
1		3		5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
ILLINOIS.																								
Chicago	Artcraft Institute	1	T. S.	15	10 <sup>1/2</sup>	3	72	6	72	3	36	3	108	1	4 <sup>1/2</sup>	2	72	2	36	3	36		X	X
Do.	Art School of the Art Institute	3	T. S.	15	80	7	80	6	40	6	10	3	40	1	30	1	36	1	36	3	36		X	X
Do.	Chicago Academy of Fine Arts	2	T. S.	15	48	15	48	15	48	15	48	15	48	15	48	15	48	15	48	15	48		X	X
Do.	School of Education (University of Chicago)	4	T. S.	8	36	8	36	2	36	2	36	3	36	1	3 <sup>1/2</sup>	4	18-3 <sup>1/2</sup>	1	18	2	36		X	0
Decatur	School of Fine and Applied Arts (Jas. Milliken Univ.)	2-4	T. S.	10	38	10	14	15	14			5	12	10	12	4	12-39	15	12	15	24-27		X	0
De Kalb	Normal School	2	T. S.	5	160	5	40					5	40	5	40	5	87	5	40	5	40		X	0
Evanston	Greer College	4	T.	18	108	2	108	4	108			5	40	3	108	3	108	2	108	5	12		X	0
Rocktonville	Illinois W. Emanuel's College	3	T. S.	5	24	5	24	5	24	2	12	5	12	5	12	5	60	5	48	5	36		X	0
Maconb.	Western Illinois State Normal School	2	T.	5	24	5	24	5	24			5	12	5	12	5	60	5	48	5	36		X	0
Normal	Illinois State Normal University	2	T. S.	5	54	5	36	10	54	10	12	5	36	5	12	5	60	5	48	5	36		X	0
Pearis	Bradley Polytechnic Institute	2	T. S.	10	78	10	24	10	60	10	6	5	12	6	6	5-10	12-36			5	12		X	0
Urbana	University of Illinois	6-20		6-12	6-12	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		X	0
INDIANA.																								
Asaph	Tri-State College	1	T. S.	25	24	15	12	5	24			5	12	5	12	5	12	16	24	5	6		X	0
Bloomington	Indiana State University	1	T. S.	10	2	2																	X	0

COURSES FOR TRAINING TEACHERS OF ART.

Location	Institution	Term	Days	Hours	Weeks	Days	Hours	Weeks	Days	Hours	Weeks	Degrees	Other
INDIANA	Central Normal College	2 T.	5	96	6	36	6	144	5	36	2	A. B., B. S.	X
	Fort Wayne School of Art	2 T.	24	72	3	35	1	35	12	36	15		X
	John Herron Art Institute	2 T. S.	19	35	3	35	3	105	1-3	35	56		X
	Teachers College of Indianapolis	2 T. S.	5	24	5	12	5	60	5	12	24		X
	Marion Normal Institute	2 T. S.	5	36	5	12	5	60	5	12	24		X
IOWA	Indiana State Normal School	2-4 T. S.	4	128	4	12	4	48	5	104	16	B. S., M. S., B. L., A. B., M. A.	X
	Normal and Scientific Institute	T. S.	5	16	5	12	5	60	5	12	6		X
KANSAS	Charles City College	2 T. S.	4	38	2	48	2	96	4	60	2		0
	Dea Mines College	2 T.	12	72	2	24	2	48	2	60	2		0
	Cornell College	2 T.	12	72	2	24	2	48	2	60	2		0
KENTUCKY	Baker University	2 T. S.	3	3	3	2	1	3	1	2	2		0
	Bethany College	3, 4 T.	15	15	3	3	3	9	5	18	2		0
LOUISIANA	Western Kentucky State Normal School	5 T. S.	20	20	6	10	6	60	6	10	10		0
	Eastern Kentucky State Normal School	2 T. S.	6	30	6	10	6	60	6	10	10		0
	Louisiana State Normal School	2 T.	4	12	4	12	5	60	1	72	5	36	
MAINE	Springfield Normal School	4 T. S.	31-5	132	3	132	4	66	1	66	2	A. B.	X
	Arceuthok State Normal School	2 T.	3	50	2	63	2	126	1	12	12		0
MARYLAND	Baltimore State Normal School	2 T.	3	36	3	36	3	108	4	72	24		0
	Maryland Institute	4 T. S.	42	84	42	21	42	84	2	21	20		0

1 Lecture.

TABLE II.—Courses for training teachers of art—Continued.

Location.	Institution.	Years in course.	Course designed for—	Drawing and painting.		Design.		Craft work.		Modeling.		Methods.		History of art.		History of education: psychology, pedagogy.		Anatomy: descriptive, comparative position.		Practice teaching.		Degrees conferred.	Summer courses offered.	Night classes.		
				Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.				Hours per week.	Weeks in course.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
MASSACHUSETTS.																										
Boston.....	Froebel School of Kindergarten Normal Classes.	0		1	10	1	10			1	10		30		1	20		1	10							
Do.....	School of the Museum of Fine Arts.			36		20		5						1				4								
Cambridge.....	Lesley Normal School.	1	T.	20		1	30	1	15	1	15			2	30			10			12					
Lowell.....	Congress Hall Camp and Studio.			20																						
Salem.....	State Normal School.	2	T, S.	9	12	2	10	2	20	2	6			1	15			2	20	2	12					
Worcester.....	Art School of the Worcester Museum.	2	T.	9		12		6		5				1	15			2	20	2	12					
MICHIGAN.																										
Charlevoix.....	Charlevoix County Normal School.	1	T.	1	36																					
Charlevoix.....	Evening County Normal School.	1	T.	5	36																10	20				
Detroit.....	Thomas Normal Training School.	1	T, S.	6	40	14	40	3	24	1	10	2	22	1	40	1	20	14	16	1	24					
Flint.....	Genesee County Normal School.		T.	2	36																					
Grand Rapids.....	Grand Rapids Kindergarten Training School.		T, S.	5	6	5	2			5	2			2	30	4	30	4	30	4	48					
Hillsdale.....	Hillsdale College.	2	T, S.	2	38	1	12	10	6	1	1	16	6	1	18	16	36	2	12	1	16					
Salamanca.....	Western State Normal School.	2	T.	16	56	16	12	10	6	1	1	16	6	1	18	16	36	2	12	1	16					

COURSES FOR TRAINING TEACHERS OF ART.

Location	School	T. S.	5	36	5	24	5	12	5	12	5	12	5	12	5	48	5	36	5	24	0	X	0
Mount Pleasant	Central State Normal School	2 T. S.	5	36	5	24	5	12	5	12	5	12	5	12	5	48	5	36	5	24	0	X	0
Muskegon	Muskegon Co. Normal Training Ctr.	T.	1	36												48	5	36			0	0	0
Olivet	Olivet College	2, 4 T.	8	36	5	3	3									40	5	36	2		0	0	0
Saginaw	County Normal School	T.	1	40												40	5	36	5	10	0	0	0
Standish	Aronso County Normal School	T.	2	40												40	5	36	5	10	0	0	0
Ypsilanti	State Normal College	2 T. S.	4	48	4	12	4	12	4	12	1	36	4	48	4	48	4	36	4	24-36	B. P. D. M. P. D., A. B.	X	0
MINNESOTA																							
Madison	Lutheran Normal School	T.														36	5	36	3	36	0	0	0
Marquette	State Normal School	T. S.														60	11	30	6	30	0	0	0
Minneapolis	Endicott Guild School of Design, Handicraft and Normal Art	2 T. S.	8	60	6	60	2	60	4	10	2	30	1	60	11	60	11	30	6	30	0	0	0
Do.	University of Minnesota	3 T. S.	6	40	6	36	6	40	6	40	2	20	6	20	6	20	6	40	6	24	0	0	0
Do.	State Normal School	1 T. S.	5	36	5	36	10	36	5	24	5	24	5	24	5	24	5	24	5	24	0	X	0
Moorhead	St. Paul Institute School of Art	2 T. S.	18-21	28-32	6	32	15	32	15	8	2	32	2	8	2	32	2	32	2	12	0	X	0
St. Paul	Winona State Normal School	3 T. S.	5	24	5	36	5	12	5	12	5	12	5	12	5	60	5	36	5	36	0	0	0
MISSOURI																							
Cape Girardeau	State Normal School	3 T.	5	72	5	36	5	36	5	12	5	12	5	12	5	108	5	48	5	36	0	0	0
Kennett	Northwest Normal School	4 T. S.	5	36	5	36	5	36	5	36	5	36	5	36	5	72	5	36	5	36	0	X	0
Marionville	State Normal School	2 T. S.	5	48	5	48	5	48	5	48	5	48	5	48	5	48	5	48	5	48	0	X	0
Springfield	St. Louis School of Fine Arts	4 T. S.	5	36	5	36	5	36	5	36	5	36	5	36	5	72	5	24	5	24	0	X	0
St. Louis	State Normal School	2 T. S.	10	72	10	12	10	12	10	12	5	12	5	12	5	36	5	24	5	36	0	X	0
Warrensburg	Fremont College	1 T. S.	6	20	5	18	5	18	5	18	5	18	5	18	5	20	3	20	3	36	0	X	0
Warrensburg	State Normal School	2 T. S.	10	72	10	12	10	12	10	12	5	12	5	12	5	36	5	24	5	36	0	X	0
NEBRASKA																							
Fremont	Fremont College	1 T. S.	6	20	5	18	5	18	5	18	5	18	5	18	5	20	3	20	3	36	0	X	0
Kearney	State Normal School	2 T. S.	5	36	5	36	5	36	5	36	5	36	5	36	5	36	5	36	5	36	0	X	0
Lincoln	School of Fine Arts	4 T. S.	6-9	160	3	18	3	18	3	18	3	18	3	18	3	36	3	36	3	36	0	X	0
Peru	do.	2 T. S.	5	36	5	36	5	36	5	36	5	36	5	36	5	36	5	36	5	36	0	X	0
NEW HAMPSHIRE																							
Keene	Keene Normal School	3 T. S.	3	18												18	3	18	3	18	0	X	0
Plymouth	Plymouth Normal School	3 T. S.	3-10	36												10	3	18	3	18	0	X	0
NEW JERSEY																							
Elizabeth	Elizabeth Normal and Teachers' Training School	2 T.	1	40												80	10	20	10	20	0	0	0
Jersey City	do.	1	1	40												20-30	3	20-30	3	20-30	0	0	0
New Brunswick	Rutgers College	2	2	36												36	2	36	2	36	0	0	0

TABLE II.—Courses for training teachers of art—Continued.

Location.	Institution.	Years in course.	Courses designed for—		Drawing and painting.		Design.		Craft work.		Modeling.		Methods.		History of art.		History of education; pedagogy; psychology.		Anatomy: perspective; color theory; composition.		Practice teaching.		Degrees conferred.	Summer courses offered.	Night classes.	
			Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.				Hours per week.
1	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
<b>NEW JERSEY—CON.</b>																										
Peterboro	Normal Training School	2	T.	1	10	1	6	1	6	1	6	1	40	1	31	1	36	1	36	1	36	1	36	0	0	0
Trenton	State Normal School	2	T.	3	19	3	10	3	10	3	10	3	19	3	19	3	19	3	19	3	19	3	19	0	0	0
<b>NEW MEXICO.</b>																										
Las Vegas	New Mexico Normal University	1	T.	10	36	5	36	5	36	5	36	5	36	5	18	5	18	5	18	5	18	5	12	0	0	0
Silver City	New Mexico Normal School	1	T.	16	16	16	16	16	16	16	16	16	16	16	16	5	20-30	5	20-30	5	20-30	5	12	0	0	0
<b>NEW YORK.</b>																										
Albany	N. Y. State School of Clay-working and Ceramics	4	T.	4	140	1	140	4	88	4	72	4	72	2	35	8	35	8	35	8	35	8	35	0	0	0
Brooklyn	Pratt Institute	2	T. S.	3-6	36	3	36-12	36	6	18	6	72	1	35	2-5	36	3	36	6	6	6	6	6	0	0	0
Buffalo	Art School of the Albright Art Gallery	2	T. S.	18	18	18	12	12	12	12	12	6	72	1	35	2-5	36	3	36	6	6	6	6	0	0	0
Fredonia	Fredonia Normal School	2	T. S.	8	40	11	90	8	15	8	15	4	40	3	20	5	40	5	40	5	120	5	120	0	0	0
New York	New York School of Applied Design for Women	2	T. S.	7	7	2	2	2	2	2	2	4	40	3	20	5	40	5	40	5	120	5	120	0	0	0
Do	New York School of Fine Arts	2	T. S.	6	32	24	32	3	32	3	32	3	32	1	12	20	3	32	30	30	30	30	30	0	0	0
Do	New York Training School for Teachers	2	T.	3	20	2	20	14	40	40	40	2	20	1	12	20	5	40	1	20	25	20	20	0	0	0
Do	New York University (summer school)	2	T. S.	20	3	20	3	20	6	6	6	20	1	1	1	40	6	40	6	6	6	6	6	0	0	0

Do.	4-9	6	3-4	4	36	28	36	2	36	3-5	20	36	B. S.	X
Teachers' College, Columbia University.	4	29	4	4	4	29	36	2	29	3	3	29	B. P.	X
The Frick School, Syracuse.	16		4	4	4			1						0
College of Fine Arts (Syracuse University).														0
NORTH CAROLINA														
Fayetteville.	4	2	3	32	32	2	32	2	32	3	32	32	0	0
State Colored Normal School.	T. B.	4	1	32	32	4	32	5	32	2	5	32	0	0
Franklin.	4	20	5			5							0	0
Lenoir College.													0	0
NORTH DAKOTA														
Ellendale.	4	5	36	10	36	6	36	5	36	10	26	5	18	X
State Normal Industrial School.	T.												0	0
University of North Dakota.	2-4	5-14-28	5-10-20	2-4	20-34	5	34	5	19	217-34	4	69	5-10-24	0
Kota.	T.												0	0
State Normal School.	2	5	36	5	12	5	36	5	12	5	36	5	36	0
Valley City.	2	T. B.	5	108	5	36	5	12	5	36	5	36	0	X
OHIO														
State Normal College of Athens.	2, 3	38	3	38	2	38	18	38	1	38	1	19	38	0
Ohio University.	2	38	3	38	2	38	18	38	1	38	1	19	38	X
Art Academy of Cincinnati.	2	38	3	80	21	40	21	40	3	80	2	40	40	0
Do.	5	160	4	80	8	160	6	80	20	32	1	40	40	X
Cleveland.	4	16	11	16	16	6	16	11	18	11	4	11	8	0
Do.	12	16	11	16	16	6	16	11	18	11	4	11	8	0
Cleveland Normal Training School.	T.													0
Ohio State University.	4	4	4	4	4	4	4	4	4	9	1-3	2	0	0
Dayton Normal School.	2	40	2	7	2	10	8	2	7	50	8	20	0	0
Ohio Wesleyan University.	3	35	8	35	8	8	35	3	35	3	1-3	20	0	0
Do.	8	35	8	35	8	8	35	3	35	3	1-3	20	0	0
School of Art.	2	36	2	36	2	36	1	36	2	18	2	18	0	0
Oberlin College.	2	T. B.	18	36	2	36	1	36	2	18	2	18	0	0
Oxford.	2	T.	72	6-9	18	9	36	3	36	4-9-36	3	72	3	36
Miami University.	2	T.	40	1	6	1	6	1	76	1	20	20-76	0	0
Springfield.	2	1	76	1	76	1	76	1	76	1	20	20-76	0	0
Toledo Normal School.	2	T.											0	0
OKLAHOMA														
Edmond.	3	T. B.	5-10	72	12	5	108	1	36	5	108	5	36	0
Central State Normal School.	4	T. B.	5	36										X
Southwestern State Normal School.	4	T. B.	5	36										X
OREGON														
Monmouth.	1	T.	5	40	5	40	1	40	1	40	5	40		X

TABLE II.—Courses for training teachers of art.—Continued.

Location.	Institution.	Years in course	Course designed for—	Drawing and painting.		Design.		Craft work.		Modeling.		Methods.		History of art.		History of pedagogy, psychology.		Anatomy, perspective, color, etc.		Practice teaching.		Degrees conferred.	Summer courses offered.	Night classes.	
				Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.				Hours per week.
1	§	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
PENNSYLVANIA.																									
California	Southwestern State Normal School		T.	4	40										1	80	8	40			22	20			0
Clarion	State Normal School		T.	4	27							4	14			4	164				5	41			0
Fort Washington	Darby School of Painting		T. S.	5	80	3	50	4	40	4	3	4	26	4	15			3	5-50		8	54			0
Indiana	State Normal School	2	T. S.	33	40																				0
Knottown	Keystone State Normal School		T. S.	10	52	10	28	5	40	4	40	4	40	2	40	6	80	5	20	5	3	40			0
Mansfield	do.		T.	34	13	33	12	34	5			34	3	31	3	24	9	24	8	34	8	12	B. Pd., M. Pd.		0
Millsville	Lycoming County Normal School		T.	24	9																				0
Muncy	Pennsylvania Academy of the Fine Arts		T.	54																					0
Philadelphia	do.		T.	54																					0
Do.	Frederick Training School for Women	2	T. S.	2	42	4	10			1	10	10	60	1	30	7	64	2	20	4	15				0
Do.	Pennsylvania Museum and School of Industrial Art	4	T. S.	30				30		30		3-6		3-6				3-6			3-6				0
Shippensburg	Cumberland Valley State Normal School	1	T. S.	3	40																5	40			0
RHODE ISLAND.																									
Providence	Rhode Island Normal School	2 1/2	T.			2	60	2	20			2	20			3, 4	20-40								0
Do.	Rhode Island School of Design	4	T.	6-22	30-10	30	4	30	4	30	4	30	2	30	2	30	5	30	4	30	5	30			0





TABLE II.—Courses for training teachers of art—Continued.

Location.	Institution.	Years in course.	Course designed for	Drawing and painting.		Design.		Craft work.		Modeling.		Methods.		History of art.		History of education, pedagogy, psychology.		Anatomy: perspective, color theory, composition.		Practice teaching.		Degrees conferred.	Summer courses offered.	Night classes.	
				Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.	Hours per week.	Weeks in course.				Hours per week.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
<b>WEST VIRGINIA.</b>																									
Bethany College.....		3	T.	8	32																				
Harper Ferry.....		3	T. S.	5	108	5	108	5	108			2				8	32								
Huntington.....		3	T. S.	5	108	5	108	5	108			5	18	5	18	5	18	5	72	5	36				
Shepherdstown.....		2	T.	5	14	5	14																		
West Liberty.....		1	T.	5								5				5	48			5	18				
<b>WISCONSIN.</b>																									
Berlin, a.....	Green Lake County Training School.			5	20	5	10									5	10			5	40				
Columbus.....	Columbia County Training School.			1	10																				
Edgemoor.....	State Normal School.	2	T. S.	5	80																				
Merrill.....	Lincoln County Training School for Teachers.	4	T.	10	20																				
Milwaukee.....	School for Fine and Applied Arts, State Normal School.	2, 3	T. S.	12	120	6	120	3-12	20-40	6	20	3	80	1	54	1-5	20	11-64	12-40	9	30				
New London.....	Waupaca County Normal School.	130	T.	5	20	5	10	5	10																
Phillips.....	Price County Training School for Teachers.			5	10																				
Platteville.....	State Normal School.			5	108	5	10					5	20												

Rhinelander								5	20				0	0	0
Rice Lake								5	20				0	0	0
Richard Center								5	20			5	20	0	0
River Falls								5	20			5	20	0	0
St. Croix Falls								3	10			3	20	0	0
Wausau								4	20					0	0
Waunoma								3	15			8	10	0	0
Whitewater								5	40			5		0	X

1 Weeks.

DRAWING AND ART IN SCHOOLS.

TABLE III.—Drawing in city schools (elementary grades).

Note.—X indicates "Yes," and 0 "No." T is abbreviation for Teacher, and S. for Supervisor, in column 7.

Location.	Minutes per week devoted to drawing.	Director or supervisor employed.	Salary of director or supervisor.	Assistant teachers employed.	Salary of assistant teachers.	Does director teach or supervise?	Handwork taught with drawing.	Value of equipment in drawing.	Value of equipment in handwork.	Cost per year of material.	Materials supplied by city.	Drawing correlated with other subjects.	Grades in which the following are taught—								Grades in which design or handwork in the following are taught—									
													Free drawing.	Composition.	Illustration.	Object drawing.	Nature drawing.	Mechanical drawing.	Perspective.	Color.	Design.	Handwork.	Reeds and raffia.	Yarns.	Paper and cardboard.	Clay.	Metal.	Leather.	Wood.	
<b>ALABAMA.</b>																														
Uniontown.....	75-100	0					0				0	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Birmingham.....	60	X	\$2,000	X	\$800	S.	X	\$2,750			X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cadahan.....	80	X	585	0	1,100	T.S.	0				0	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Mobile.....	80	X	1,350	0		T.S.	X	750			0	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>ARIZONA.</b>																														
Phoenix.....	90-100	X	1,100			T.S.	X	\$400		\$400	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>ARKANSAS.</b>																														
Fort Smith.....	75	X	900	0		S.	X	\$500		2,000	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Hick Springs.....	100	X	810	0		S.	X				0	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>CALIFORNIA.</b>																														
Alameda.....	60	X	1,400	0		T.S.	X	100		450	0	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Bakersfield.....	60	X	1,350			T.S.	X	900		2,000	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Fontana.....	60	X	1,350	X	1,250	T.S.	X	900		2,000	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Long Beach.....	75	X	1,200	X	900	T.S.	X	50		1,000	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Los Angeles.....	90	X	2,700	4	1,600	T.S.	X	15,000		2,500	6,645	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Oakland.....	60-80	X	1,800	X	1,500	T.S.	X	44,000		1,200	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Pasadena.....	60	X	1,500	X	1,200	T.S.	X	500		500	X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Pennock.....	120	X	3,300	0		T.S.	X				X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Richmond.....	60-100	X	1,200	X		T.S.	X				X	X	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30





DRAWING IN CITY SCHOOLS.

City	Grades	Enrollment	Teachers	Books	Tables	Chairs	Other	Cost	Notes
Quincy	75	1,100	800	0	0	0	0	1,100	T. S.
Rockford	60-80	1,600	650	1	1	1	1	1,600	T. S.
Springfield	60-80	1,600	650	X	X	X	X	1,600	T. S.
INDIANA									
East Chicago	60	900	0	0	0	0	0	900	T. S.
Evansville	100	1,400	0	0	0	0	0	1,400	T. S.
Fort Wayne	75-90	1,600	0	0	0	0	0	1,600	T. S.
Hammond	80	1,000	0	0	0	0	0	1,000	T. S.
Indianapolis	75	810	0	0	0	0	0	810	T. S.
Jeffersonville	60	810	0	0	0	0	0	810	T. S.
Lafayette	60	860	0	0	0	0	0	860	T. S.
Lebanon	60	1,500	0	0	0	0	0	1,500	T. S.
Logansport	60	900	0	0	0	0	0	900	T. S.
Merrill	60	1,000	0	0	0	0	0	1,000	T. S.
Mishawaka	90	775	0	0	0	0	0	775	T. S.
Munich	100-150	1,000	0	0	0	0	0	1,000	T. S.
Peru	60-90	1,200	0	0	0	0	0	1,200	T. S.
Richmond	100	1,800	0	0	0	0	0	1,800	T. S.
South Bend	100	1,800	0	0	0	0	0	1,800	T. S.
Terre Haute	100	1,240	0	0	0	0	0	1,240	T. S.
IOWA									
Boone	145	675	0	0	0	0	0	675	T. S.
Boonville	75	900	0	0	0	0	0	900	T. S.
Cedar Rapids	90-125	1,400	0	0	0	0	0	1,400	T. S.
Clinton	60-90	1,000	0	0	0	0	0	1,000	T. S.
Council Bluffs	100-120	900	0	0	0	0	0	900	T. S.
Davenport	60-90	1,200	0	0	0	0	0	1,200	T. S.
Dubuque	225	950	0	0	0	0	0	950	T. S.
Gary	30	800	0	0	0	0	0	800	T. S.
Iowa City	75-100	630	0	0	0	0	0	630	T. S.
Keokuk	75	800	0	0	0	0	0	800	T. S.
Marshalltown	75	800	0	0	0	0	0	800	T. S.
Mason City	75	800	0	0	0	0	0	800	T. S.
Mountaineer	75	800	0	0	0	0	0	800	T. S.
Shenandoah	75	800	0	0	0	0	0	800	T. S.
Spencer	75	800	0	0	0	0	0	800	T. S.
Waterloo (West)	30-60	1,765	0	0	0	0	0	1,765	T. S.

TABLE III.—Drawing in city schools (elementary grades)—Continued.

Location	Minutes per week devoted to drawing	Director or supervisor employed	Salary of director or supervisor	Assistant teachers employed	Salary of assistant teachers, etc.	Does director teach or supervise?	Handwork taught with drawing	Value of equipment in handwork	Value of equipment in drawing	Cost per year of material	Materials supplied by city	Drawing correlated with other subjects	Grades in which the following are taught—								Grades in which design or handwork in the following are taught—								
													14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
KANSAS																													
Ashley	60-120	X	0	0	0		X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Fort Scott		X	\$810	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Kansas City	1,186	X	1,186	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Lawrence	60	X	540	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Leavenworth	100	X	765	0	0	T.S.	X	\$3,000	200	200	400	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Topeka	60	X	1,000	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
KENTUCKY																													
Frankfort	40	X	475	0	0	T.S.	X	0	0	500	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Frankfort	40	X	1,500	0	0	T.S.	X	3,000	180	250	500	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Frankfort	50	X	1,500	0	0	T.S.	X	0	0	3,102	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Newport	50	X	900	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Owensboro	40	X	0	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Paducah	200	X	800	0	0	T.S.	X	0	0	0	0	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
LOUISIANA																													
New Orleans	60	X	1,250	X	{ 600-800 }	8.	X	0	0	2,000	X	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MARYLAND																													
Annapolis	60	X	650	0	0	S.	X	600	2,000	450	X	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Lawrenceville	60	X	1,000	0	0	T.S.	X	60	170	0	X	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MARYLAND																													
Baltimore	60	X	1,200	8	800	T.S.	X	0	0	1,000	X	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cumbersland	60	X	1,500	0	0	T.S.	X	0	0	1,000	X	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Hightstown	120	X	0	0	0	T.S.	X	0	0	525	X	X	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

City	Age	Sex	Grade	Score	Count	Percentage	Notes
Adams	30-40	X	1,050	0	0	T.S.	
Attleborough	50-60	X	900	0	0	T.S.	
Beverly	50-60	X	950	0	0	T.S.	
Boston	90-100	X	3,420	X	1,544	T.S.	
Brockton	60	X	1,200	X	3,080	T.S.	
Cambridge	80	X	2,000	X	850	S.	
Chelsea	60-80	X	1,200	0	0	T.S.	
Chicopee	60	X	1,200	0	0	T.S.	
Clinton	60	X	1,500	1	500	T.S.	
Everett	60	X	2,500	0	0	T.S.	
Fitchburg	75-100	X	1,000	0	0	T.S.	
Framingham	60-80	X	1,000	0	650	T.S.	
Gardner	60	X	1,000	X	600	T.S.	
Gloucester	80	X	1,150	X	75	T.	
Greenfield	60-75	X	1,200	X	550	B.	
Holyoke	60-90	X	1,900	2	900	T.S.	
Lawrence	60-90	X	1,250	1	950	T.S.	
Lynn	80-100	X	1,700	0	0	T.S.	
Malden	60-80	X	1,800	X	890	T.S.	
Mattapa	90	X	750	X	1,900	T.S.	
New Bedford	60-90	X	2,500	X	1,400	T.S.	
Newburyport	90	X	1,000	0	0	T.S.	
Newton	80	X	1,000	0	0	T.S.	
North Adams	90	X	800	0	0	T.S.	
Northampton	90	X	800	0	0	T.S.	
Peabody	75	X	1,000	0	0	T.S.	
Princeton	90	X	1,000	0	0	T.S.	
Raymond	80-90	X	750	0	0	T.S.	
Salem	90-100	X	1,200	0	0	T.S.	
Somerville	90	X	1,000	0	0	T.S.	
Southbridge	90	X	600	0	0	T.S.	
Springfield	65-90	X	1,000	2	800	T.S.	
Taunton	90	X	1,000	0	0	T.S.	
Ware	60	X	500	0	0	T.S.	
Wareham	90	X	1,200	1	750	T.S.	
Webster	90	X	700	0	200	T.S.	
Weymouth	90-100	X	700	0	0	T.S.	
Winthrop	60	X	800	0	0	T.S.	
Woburn	60	X	2,200	X	1,000	T.S.	
Worcester	80-90	X	6,500	X	2,441	T.S.	

MASSACHUSETTS.







TABLE III.—Drawing in city schools (elementary grades)—Continued.

Location.	Minutes per week devoted to drawing.	Director or supervisor employed.	Salary of director or superintendent.	Assistant teachers employed.	Salary of assistant teachers.	Does director teach or supervise?	Handwork taught with drawing.	Value of equipment in handwork.	Value of equipment in drawing.	Cost per year of material.	Materials supplied by city.	Drawings correlated with other subjects.	Grades in which the following are taught—											Wood.	Leather.	Metal.	Clay.	Paper and cardboard.	26	27	28	29	30					
													14	15	16	17	18	19	20	21	22	23	24											25				
NEW JERSEY—continued.																																						
East Orange.....	60-90	X	\$1,400	1	900	T. S.	X	875	500	2,500	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Elizabeth.....	60-120	X	1,100	0	0	T. S.	X	3,000	600	350	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Hackensack.....	40	X	1,600	X	1,300	T. S.	X	3,200	600	350	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Hoboken.....	40	X	1,200	0	0	T. S.	X	200	200	400	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Irvington.....	60-90	X	1,050	0	650	T. S.	X	200	200	400	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Long Branch.....	60-90	X	700	0	0	T. S.	X	1,800	200	400	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Millville.....	90	X	2,000	11	1,050	T. S.	X	1,900	200	400	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Montclair.....	60-90	X	2,000	11	1,050	T. S.	X	1,900	200	400	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Newark.....	60	X	2,000	2	1,000	T. S.	X	20,452	0	2,000	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
North Bergen.....	60	X	700	0	0	T. S.	X	175	0	0	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Orange.....	60	X	1,000	0	0	T. S.	X	955	0	0	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Passaic.....	75	X	1,150	1	1,000	T. S.	X	500	0	1,000	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
Paterson.....	75	X	1,000	0	0	T. S.	X	0	0	0	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Perth Amboy.....	40	X	950	0	0	T. S.	X	15,000	0	748	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
Trenton.....	60-90	X	1,500	X	0	T. S.	X	0	0	3,500	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
West Hoboken.....	60-120	X	1,700	1	850	T. S.	X	400	100	1,200	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
West New York.....	60-105	X	1,125	0	850	T. S.	X	100	200	350	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
West Orange.....	60-90	X	900	1	800	T. S.	X	0	0	0	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
NEW MEXICO.																																						
Albuquerque.....	100-150	X	900	0	0	T. S.	X	0	0	0	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	
NEW YORK.																																						
Albany.....	150	X	1,900	0	900	T. S.	X	200	500	1,500	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
Auburn.....	90	X	900	0	750	T. S.	X	0	500	500	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8





City	Year	Value	Units	Material	Personnel	Supplies	Other	Total	Per Capita	Notes
OKLAHOMA										
Beid	25	720	50	100	X	X	X	100	1.8	1.8
Outbrie	40-100	630	180	600	X	X	X	600	1.8	1.8
McAister	90-90	425	600	200	X	X	X	500	1.8	1.8
Muskogee	90-135	1,200	600	2,000	X	X	X	2,000	1.8	1.8
Okahoma City	90-90	1,000	1,000	500	X	X	X	500	1.8	1.8
OREGON										
Salem	120	1,000	765	500	X	X	X	500	1.8	1.8
PENNSYLVANIA										
Allentown	90	800	0	500	X	X	X	500	1.8	1.8
Altoona	60	1,000	0	720-900	X	X	X	720	1.8	1.8
Bradock	40	1,080	10	150	X	X	X	150	1.8	1.8
Breadford	60-75	810	2,000	500	X	X	X	500	1.8	1.8
Butler	60	765	0	1,000	X	X	X	1,000	1.8	1.8
Carlisle	60	728	0	200	X	X	X	200	1.8	1.8
Chester	90	675	0	300	X	X	X	300	1.8	1.8
Catsville	60-90	1,000	0	100	X	X	X	100	1.8	1.8
Columbia	200	630	0	1,000	X	X	X	1,000	1.8	1.8
DuBois	120	720	0	900	X	X	X	900	1.8	1.8
Duquesne	45-75	900	0	83	X	X	X	83	1.8	1.8
Er's	60	950	0	1,000	X	X	X	1,000	1.8	1.8
Harrisburg	1,100	1,000	0	750	X	X	X	750	1.8	1.8
Hudson	90	900	1	1,550	X	X	X	1,550	1.8	1.8
Honesda	120	990	1	800	X	X	X	800	1.8	1.8
Jonestown	100	1,300	0	1,800	X	X	X	1,800	1.8	1.8
Lebanon	60	885	0	1,000	X	X	X	1,000	1.8	1.8
McKeesport	120	1,200	0	10,000	X	X	X	10,000	1.8	1.8
McKees Rocks	120	675	0	100	X	X	X	100	1.8	1.8
Mount Carmel	100	720	0	500	X	X	X	500	1.8	1.8
Nerristown	60	900	0	1,000	X	X	X	1,000	1.8	1.8
Philadelphia	105	4,000	10	1,200	X	X	X	1,200	1.8	1.8
Phoenixville	90	850	0	300	X	X	X	300	1.8	1.8
Pittsburgh	60-200	3,000	12	1,000	X	X	X	1,000	1.8	1.8
Reading	60	800	0	900	X	X	X	900	1.8	1.8
Sharon	90	900	0	900	X	X	X	900	1.8	1.8
Sharon	135	900	0	616	X	X	X	616	1.8	1.8
Shenandoah	100-175	630	0	500	X	X	X	500	1.8	1.8
Steelton	100	1,080	0	500	X	X	X	500	1.8	1.8
Warren	75	675	0	400	X	X	X	400	1.8	1.8
Washington	100-200	675	0	600-900	X	X	X	600	1.8	1.8
West Chester	60	1,100	0	600	X	X	X	600	1.8	1.8
Wilkes Barre	100-200	1,000	0	600	X	X	X	600	1.8	1.8
Wilkesburg	90	880	0	400	X	X	X	400	1.8	1.8
Williamsport	90	980	0	800	X	X	X	800	1.8	1.8
York	85	835	0	580	X	X	X	580	1.8	1.8

TABLE III.—Drawing in city schools (elementary grades)—Continued.

Location.	Minutes per week devoted to drawing.	Director or supervisor employed.	Salary of director or supervisor.	Assistant teachers employed.	Salary of assistant teachers.	Does director teach or supervise?	Handwork taught with drawing.	Value of equipment in drawing.	Value of equipment in handwork.	Cost per year of material.	Materials supplied by city.	Drawing correlated with other subjects.	Grades in which the following are taught—										Grades in which design or handwork in the following are taught—											
													Free drawing.	Composition.	Illustration.	Object drawing.	Nature drawing.	Mechanical drawing.	Perspective.	Color.	Design.	Handwork.	Needle and raffia.	Yarn.	Paper and cardboard.	Clay.	Metal.	Leather.	Wood.					
<b>RHODE ISLAND.</b>																																		
Central Falls.....	87 0	X	750	0	0	T. S.	X	500	100	100	X	X	X	X	X	X	X	1-1	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9			
Cranston.....	60	X	625	0	0	T. S.	X	500	100	500	X	X	X	X	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8			
East Providence.....	60	X	750	0	0	T. S.	X	500	100	500	X	X	X	X	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8		
Pawtucket.....	75-90	X	900	0	0	T. S.	X	600	700	1,000	X	X	X	X	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8		
Warwick.....	90-120	X	1,500	1	800	T. S.	X	2,500	600	1,000	X	X	X	X	X	X	X	1-1	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8		
Woonsocket.....	75-90	X	1,000	0	500	T.	X	300	400	400	X	X	X	X	X	X	X	1-1	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9	
<b>SOUTH CAROLINA.</b>																																		
Charleston.....	60	0	0	0	0	0	0	1,000	0	400	0	X	X	X	X	X	X	5-7	5-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	
Columbia.....	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-1	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	
Spartanburg.....	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1-1	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	
<b>SOUTH DAKOTA.</b>																																		
Aberdeen.....	100	X	855	0	0	T. S.	X	100	400	400	X	X	X	X	X	X	X	4-5	4-5	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
Sioux Falls.....	60	X	1,100	0	0	S.	X	200	500	2,000	X	X	X	X	X	X	X	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
<b>TENNESSEE.</b>																																		
Chattanooga.....	50-80	X	1,000	0	0	S.	X	200	500	2,000	X	X	X	X	X	X	X	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
Nashville.....	150	X	1,780	2	980-1,080	T. S.	X	500	500	2,000	X	X	X	X	X	X	X	3-6	3-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8	4-8
<b>TEXAS.</b>																																		
Beaumont.....	75	X	900	0	0	0	X	0	0	0	0	0	0	0	0	0	0	4-7	4-7	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3
Cleburne.....	95	X	720	0	0	0	X	0	0	0	0	0	0	0	0	0	0	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3

Dallas	1,600	855	T. S.	25	50	1-3	1-7	1-7	1-7	1-4	5-7	5-7	1-3	1-1	1-3	1-3
Canton	1,105	540-720	T. S.	100	80	1-4	5-7	1-8	1-8	1-8	3-8	3-8	1-8	1-2	1-6	5-8
Houston	1,105	518	T. S.	100	80	5-7	5	1-7	1-7	8	8	8	1-7	1-4	5-7	6
Marshall	875	0	T. S.	0	1,200	1-7	1-7	1-7	1-7	8	8	8	1-7	1-4	5-7	8
Palestine	0	0	S.	0	750	0	0	0	0	9	5.6	1-4	5.6	1-4	0	0
San Antonio	1,020	0	S.	0	0	1-6	1-1	1-0	1-6	0	0	0	0	0	0	0
Temple	750	0	S.	0	0	0	0	0	0	0	0	0	0	0	0	0
UTAH																
Salt Lake City	2,000	1,400	T. S.	1,500	4,000	1-4	3-8	1-8	4-8	1-8	6-8	5-8	1-8	1-6	1-8	6-8
VERMONT																
Barré	700	0	T. S.	0	100	0	6-9	1-3	1-9	1-9	4-9	6-9	1-9	1-4	1-3	0
Burlington	650	0	S.	0	0	0	0	0	0	1-4	8.9	1-4	4.6	1-6	1-3	0
Rutland	700	0	T. S.	0	0	9	7.8	1-9	1-9	1-9	7-9	1-9	8.9	3.4	1-3	7-9
VIRGINIA																
Newport News	630	0	S.	0	128	1-4	1-4	1-4	1-4	1-8	1-8	1-8	1-8	1-2	1-6	1-7
Portsmouth	30	0	T. S.	1,000	750	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-2	1-3	5-7
Richmond	40-50	0	T. S.	500-750	3,500	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-2	2.3	6-8
Roanoke	90	0	T. S.	0	0	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-2	1.2	6.7
Staunton	60	675	T. S.	100	350	0	0	0	0	6.7	5	6.7	5	1.2	1.2	6.7
WASHINGTON																
Aberdeen	90	1,050	T. S.	100	645	0.7	5-8	1-8	5-8	1-8	6-8	7	1-8	1-5	4.5	2.4
Blondfield	90	765	T. S.	0	1,000	1-8	1-8	1-8	1-8	1-8	8	5-8	1-8	1-7	1.2	1-8
Everett	75	1,400	T. S.	0	0	1-8	1-8	1-8	1-8	1-8	5-8	4-8	1-8	1-8	1-8	0
North Yakima	60	1,000	T. S.	25	250	1-8	1-8	1-8	1-8	1-8	3-8	1-8	1-8	1	6	7.8
Seattle	60	1,020	T. S.	590	470	1-8	1-8	1-8	1-8	4.5	4-8	1-8	1-8	2.3	1-3.5	1-3
Spokane	65-100	1,900	T. S.	350	400	1-8	1-8	1-8	1-8	1-8	6-8	5-8	1-8	1.2	1-8	6-8
Tacoma	60-120	1,420	T. S.	100	1,944	0	3-6	4-8	1-3	1-8	1-8	5-8	1-8	1-8	3.1	1.2
Walla Walla	60-90	1,200	T. S.	100	100	1-4	1-8	1-8	3-8	1-8	5-8	1-8	4-8	1-4	1-3	6-8
WEST VIRGINIA																
Martinsburg	40-60	500	T.	0	65	4-8	0	0	0	1-8	5-8	1-2	2	0	1-3	0
Wheeling	75	1,200	S.	0	500	1-3	7.8	1-7	1-8	1-8	4-8	1-8	3-8	1-8	5-7	3.4
WISCONSIN																
Ashland	60	900	T. S.	50	500	4-8	4-8	1-3	1-8	1-8	4-8	1-8	1-8	1.8	1-3	0-8
Beloit	60-90	900	T. S.	200	500	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8	1-8
Eau Claire	60	810	B.	34	433	1-8	1-8	1-8	1-8	1-8	4-8	1-8	1-8	1-8	1-8	1-8



TABLE III.—Drawing in city schools (elementary grades)—Continued.

Location.	Hours per week devoted to drawing.	Director or supervisor employed.	Salary of director or supervisor.	Assistant teachers employed.	Salary of assistant teacher, etc.	Does director teach or supervise?	Handwork taught with drawing.	Value of equipment in handwork.	Value of equipment in drawing.	Cost per year of material.	Materials supplied by city.	Grades in which the following are taught—												Grades in which design or hand-work in the following are taught—															
												1-3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
												Free drawing.	Composition.	Illustration.	Object drawing.	Nature drawing.	Mechanical drawing.	Perspective.	Color.	Design.	Handwork.	Reeds and raffia.	Yarns.	Paper and cardboard.	Clay.	Metal.	Leather.	Wood.											
<b>WISCONSIN—continued.</b>																																							
Fond du Lac.....	100	X	800	0		T. S.	X	\$100	\$100		X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Jacobsville.....	100-125	X	675	0		T. S.	X	140	25	\$500	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Keshochee.....	60-80	X	660	0		T. S.	X	200	200	500	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
La Crosse.....	60	X	1,100	1	\$725	T. S.	X	100	100	750	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Madison.....	90	X	900	0	875	T. S.	X	100	100	200	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Manitowish.....	120	X	850	0		T. S.	X	100	100	200	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Marquette.....	120	X	720	0		T. S.	X	1,800	100	200	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Millwaukee.....	90	X	2,100	0		T. S.	X	6,000	3,000	4,000	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Racine.....	60-150	X	1,025	0		T. S.	X	200	500	200	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Sheshoygan.....	90-120	X	850	0		T. S.	X	100	100	200	X	1-3	4-8	9-12	13-14	15-18	19-20	21	22	23	24	25	26	27	28	29	30												
Waunakee.....	150	X	1,035	1	720	T. S.	X	200	400	900	X	1-3	4-7	8-12	13-18	19-20	21	22	23	24	25	26	27	28	29	30													

DRAWING IN PUBLIC HIGH SCHOOLS.

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TABLE IV.—Drawing in public high schools.

NOTE.—X indicates "Yes" and 0 in the same column "No"; A, art school; N, normal; P, practical; C, cultural; V, vocational.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—								Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.			
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.	Approximate cost of drawing equipment.				Volumes in the art library.		
ALABAMA.													15	16	17	18	19	20	21	22	23	24	25			
Alexander City.	High School.	R	60	60	60	60	X	0	6	P. C.	0		X							10	100	X		\$300		
Andalasia.	do.	R	45	45	45	45	0	0	A. N.	P. C.	0		X									X		50		
Auburn.	Escambia County High School.	R	64	54			0	0		P. C.	X	X								30	50	X		50		
Basement.	High School.	R	67	67	67	67	X	0		P. C.	X	X								100	50	X		50		
Do.	Jonesboro High School.	R	60	60	60	60	0	0	N.	P. C.	0	0								50	24	X		500		
Bassett (R. F. D.).	Brigden High School.	R	36	36	36	36	0	0	A. N.	P. C.	X	X										X				
Birmingham	Central High School.	R	72	72	72	72	X	0		P. C.	X	X										X				
Do.	Ensay High School.	R	108	108			0	0	N.	P. C.	X	X										X				
Do.	Industrial High School (negro).	E, 2	72	72	72	72	0	0	N.	P. C.	0	0										X				
Brookside.	High School.	R	30	30	30	30	0	0		P. C.	0	0										0				
Butler.	Shelby County High School.	R	72	72	72	72	X	0		P. C.	X	X										X				
Camden.	High School.	R	34	34	34	34	0	0		P. C.	0	0										0				
Centerville.	High School.	R	45	45	45	45	0	0		P. C.	0	0										0				
Chattanooga.	Bibb County High School.	R	51	54			0	0		P. C.	X	X										0				
Columbia.	Houston County High School.	R, 2	51	54			0	0		P. C.	X	X										0				
Decatur.	High School.	R	30	30	30	30	0	0		P. C.	0	0										0				
Do.	do.	R	30	30	30	30	0	0	A.	P. C.	0	0										0				
Dothan.	do.	R	45	45	45	45	0	0		P. C.	0	0										0				
Dothan.	Winston County High School.	R	135	135	135	135	X	0		P. C.	X	X										0				
Douglas Springs.	High School.	R	48	48	48	48	0	0		P. C.	0	0										0				
Espen.	High School.	R	64	64	64	64	0	0		P. C.	0	0										0				
Evansville.	High School.	R	84	84	84	84	0	0		P. C.	0	0										0				
Erwin.	do.	R	48	48	48	48	0	0		P. C.	0	0										0				
Erwin.	Genesee County High School.	R	72	72	72	72	X	0		P. C.	0	0										0				
Etowah.	High School.	R	90	90	90	90	0	0		P. C.	0	0										0				
Macon.	do.	R	48	48	48	48	0	0		P. C.	0	0										0				
Mobile.	do.	R	90	90	90	90	0	0		P. C.	0	0										0				
New Hope.	do.	R	90	90	90	90	0	0		P. C.	0	0										0				

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—										Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.						
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.														
<b>ALABAMA—CON.</b>																																	
Oxleyville	St. Clair County High School.	R	120	120	0	0	0	0																									
Opensville	Blount County High School.	R	54	54	54	54	0	0																								\$25	
Opensville	Lee County High School.	R	48	48	0	0	0	0																								0	
Prattville	Graded School (negro).	R	54	54	67	67	0	0																								0	
Prattville	Dallas County High School.	R	120	120	0	0	0	0																								0	
Prattville	Autauga County High School.	R	24	24	0	0	0	0																								0	
Prattville	Pickens County High School.	R	24	24	0	0	0	0																								0	
Prattville	Cocosa County High School.	R	27	27	0	0	0	0																								0	
Prattville	do.	R	27	27	0	0	0	0																								0	
Prattville	do.	R	40	40	20	20	0	0																								0	
Prattville	Marion County High School.	R	24	24	0	0	0	0																								0	
Prattville	Union Springs High School.	R	60	60	55	55	0	0																								0	
<b>ARIZONA.</b>																																	
Bisbee	High School.	R, E	85	85	85	85	0	0																								500	
Kingman	Graded School.	R	36	36	36	36	0	0																								200	
Phoenix	Union High School.	E	36	36	36	36	0	0																								25	
Phoenix	High School.	E	54	54	54	54	0	0																								300	
Phoenix	do.	E	54	54	54	54	0	0																								12	
Phoenix	do.	E	54	54	54	54	0	0																									50
<b>ARKANSAS.</b>																																	
Berryville	High School.	E	18	36	36	36	0	0																								0	
Cassidy	do.	R	135	135	135	135	0	0																								0	
Cassidy	do.	R	135	135	135	135	0	0																									0
Charleston	do.	R	18	18	18	18	0	0																									0





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	School work.	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.						
			First year.	Second year.	Third year.	Fourth year.								Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.												
CALIFORNIA—cont.																															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Brea Mills.....	Erma Union High School.....	E	133	133	200	X	0	0	\$81,200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	\$60
Essex.....	Union High School.....	E	180	180	180	X	0	0	1,500	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Fairfield.....	Armita Union High School.....	R, E	240	240	240	X	0	0	1,250	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Fort Bragg.....	Union High School.....	R, E	180	180	180	X	0	0	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Fortuna.....	High School.....	E	180	180	180	X	0	0	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Fowler.....	Union High School.....	R, E	180	180	180	X	0	0	1,000	A. N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Fullerton.....	High School.....	E	360	300	360	X, 3	0	0	1,100	A. N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Fullerton.....	Union High School.....	E	360	300	360	X, 3	0	0	1,500	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Gardena.....	Agricultural High School.....	R, E	150	150	150	X	0	0	1,200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Gilroy.....	High School.....	R, E	135	135	135	X	0	0	1,400	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Glendale.....	Union High School.....	R, E	135	135	135	X	0	0	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Hayward.....	do.....	R, E	180	180	180	X	0	0	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Hayward.....	do.....	R, E	53	53	53	X	0	0	1,350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Headstair.....	High School.....	E	53	53	53	X	0	0	1,350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Hollister.....	San Benito County High School.....	E	135	135	135	X, 270	0	0	1,100	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Hatfield.....	Union High School.....	E	120	120	120	X	0	0	1,350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Hemington Beach.....	do.....	E	120	120	240	X	0	0	1,350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Imperial.....	Imperial Valley Union High School.....	E	108	108	108	X, 2	0	0	1,350	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Imperial.....	School.....	E	108	108	108	X, 2	0	0	1,350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Inglewood.....	Union High School.....	E	180	360	180	X	0	0	1,190	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Irma.....	do.....	E	360	360	360	X	0	0	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Irma.....	do.....	E	360	360	360	X	0	0	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Kingston.....	Clear Lake Union High School.....	E	120	120	120	X	0	0	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
Kingston.....	do.....	E	120	120	120	X	0	0	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0
La Grange.....	Union High School.....	E	40	40	40	X	0	0	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0



DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Requested or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.					
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.										
CALIFORNIA—con.																													
Richmond.	Union High School.	E	270	180			X	\$1,200	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	400
Riverdale.	Girls' High School.	E	300	180	300	180	X	0	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Sacramento.	High School.	E	240	240	240		X	1,500	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
St. Helena.	Union High School.	E	135	135	135		X	1,250	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Salinas.	High School.	E	370	135			X	1,200	A. N.	P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Bernardino.	do.	E	135	135	135		X	1,300	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Diego.	do.	E	240	240	240		X	1,600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Fernando.	do.	E	270	135			X	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Francisco.	Girls' High School.	E	135	135	135		X	1,650	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Do.	Lowell High School.	(R, E)	240	240	240		X	2,046	A.	C. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Do.	Mission High School.	E	160	160	150	160	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Do.	Polytechnic High School.	R	54	108	54	108	X	2,000	P.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Diego.	Union High School.	E	135	135	216	216	X	1,200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Jacinto.	High School.	E	216	216	270	270	X	1,200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Jose.	do.	E	270	270	135		X	1,500	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Luis Obispo.	California Polytechnic School.	R	360	180	180		X	1,200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Mateo.	Union High School.	E	150	150	150	150	X	1,200	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Rafael.	High School.	E	135	135			X	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Francisco.	do.	E	270	270	270		X	1,150	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Jose.	do.	E	240	240			X	1,200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Jose.	do.	E	100	100	200	200	X	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
San Jose.	do.	E	120	120	180	180	X	945	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.					
			First year.	Second year.	Third year.	Fourth year.						School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.										
COLORADO—CON.																												
1	High School.	R	72	72	72	36	X	0	A.	P. V.	X	X	X	X	X	X	X	X	X	X	150	0	0	0	0	0	0	0
	do	E	36	36	36	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	150	14	0	0	0	0	0	0
	Union High School.	E	54	54	54	54	X	0	A. N.	P. C.	X	X	X	X	X	X	X	X	X	X	300	25	100	0	0	0	0	0
	Leadville High School.	R	24	48	0	60	X	0	A. N.	P.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Littleton.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Longmont.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Louisville.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Loveland.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Manitou.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Manitou Vista.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Monte Vista High School.	R	72	72	72	36	X	0	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	300	50	50	0	0	0	0	0
	Pueblo.	E	108	72	72	72	X	0	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	500	20	0	0	0	0	0	0
	Do.	E	108	108	108	108	X	0	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	500	0	0	0	0	0	0	0
	High School (Dist. No. 20).	E	24	24	24	24	X	0	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0
	Salida High School.	R	45	45	45	45	X	0	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0
	Steamboat Springs.	R	57	57	57	57	X	0	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0
	Telluride.	R	135	135	135	135	X	0	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	200	25	25	0	0	0	0	0
	Town.	R	48	48	48	48	X	0	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	200	25	25	0	0	0	0	0
	Trinidad.	R	81	81	81	81	X	0	N.	P. C.	X	X	X	X	X	X	X	X	X	X	35	0	0	0	0	0	0	0
	Wray.	(R 1) (E 2)	81	81	81	81	X	0	A.	P. C.	X	X	X	X	X	X	X	X	X	X	35	0	0	0	0	0	0	0
CONNECTICUT.																												
	High School.	E	80	80	80	80	X	0	A.	P. C.	X	X	X	X	X	X	X	X	X	X	300	0	0	0	0	0	0	0
	Ansions.	R, E	54	54	54	54	X	0	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0
	Bridgport.	R, E	54	54	54	54	X	0	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0
	Bristol.	R, E	60	60	60	60	X	0	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0

DRAWING IN PUBLIC HIGH SCHOOLS.

Cochester.....	R	200	200	300	300	X	0					P.C.						150	
Deep River.....	R	27	27	27	27	X	0					P.C.						200	
Gulfport.....	R	135	135	135	135	X	0					P.C.						15	
Hartford.....	R, F	454	135	135	135	X	3	3	3	3	3	P.C.V.						4,000	
do.....	F	120	120	120	120	X	0					P.C.V.						75	
Madisonville.....	R, E	90	14	0	0	X	0					P.C.						25	
Myrtle Beach.....	R	8	54	54	54	X	0					P.C.						4,000	
New York.....	R, E	54	54	54	54	X	2	2	2	2	2	P.C.V.						2,000	
New Britain.....	R, E	160	160	160	160	X	5	5	5	5	5	P.C.V.						1,500	
do.....	R	160	160	160	160	X	5	5	5	5	5	P.C.V.						1,500	
Portland.....	E	109	109	36	36	X	0					P.C.V.						100	
Seymour.....	E	36	36	36	36	X	0					P.C.V.						500	
Sbelton.....	E	57	57	57	57	X	0					P.C.V.						500	
South Manchester.....	E	38	38	38	38	X	0					P.C.V.						500	
Stamford.....	R, E, E, E, E	27	27	27	27	X	0					P.C.						68	
Stonington.....	E, E, E, E	33	33	33	33	X	0					P.C.						150	
Stratford.....	E, E, E, E	91	27	27	27	X	0					P.C.V.						300	
Wallingford.....	E	27	27	27	27	X	0					P.C.						800	
Washington Depot.....	E	36	36	36	36	X	0					P.C.						125	
Windsor Locks.....	E	36	36	36	36	X	0					P.C.						50	
DELAWARE.																			
Georgetown.....	R, E	20	20	20	20	X	0					C.V.						50	
Milford.....	R, E	36	36	36	36	X	0					P.C.V.						50	
Millsboro.....	R, E	36	36	36	36	X	0					P.C.V.						50	
Wilmington.....	R, E	48	48	48	48	X	0					P.C.V.						50	
DIST. COLUMBIA.																			
Washington.....	R, E, E, E	27	27	27	27	X	0					P.C.V.						1,000	
Do.....	R, E, E, E	36	36	288	288	X	0					P.C.						897	
Do.....	R, E, E, E	72	72	288	288	X	2	2	2	2	2	P.C.V.						1,000	
Do.....	R, E, E, E	54	54	54	54	X	5	5	5	5	5	P.C.						70	
Do.....	R, E, E, E	36	36	36	36	X	0					P.C.						56	
Do.....	R, E, E, E	27	27	27	27	X	2	2	2	2	2	P.C.						50	

† Three in art; two in normal.

‡ Art schools and colleges.

§ One in art; one in normal.

¶ Two in art schools.

‡ One in art and normal; one in art.



City	Year	Value	Percentage	Per Pupil	Per Room	Per Teacher	Per 100 Pupils	Per 100 Rooms	Per 100 Teachers	Per 100 Pupils	Per 100 Rooms	Per 100 Teachers
Conington		60	60	60	60	60	60	60	60	60	60	60
Corbridge		45	45	45	45	45	45	45	45	45	45	45
Decker		36	36	36	36	36	36	36	36	36	36	36
Dearyville		90	90	90	90	90	90	90	90	90	90	90
Durand		54	54	54	54	54	54	54	54	54	54	54
Eastman		48	48	48	48	48	48	48	48	48	48	48
Fairburn		48	48	48	48	48	48	48	48	48	48	48
Fish		48	48	48	48	48	48	48	48	48	48	48
Flerville		48	48	48	48	48	48	48	48	48	48	48
Granite Hill		48	48	48	48	48	48	48	48	48	48	48
Hamilton		36	36	36	36	36	36	36	36	36	36	36
Jackson		45	45	45	45	45	45	45	45	45	45	45
Lumber City		18	18	18	18	18	18	18	18	18	18	18
Madison		30	30	30	30	30	30	30	30	30	30	30
Martin		135	135	135	135	135	135	135	135	135	135	135
Montezuma		90	90	90	90	90	90	90	90	90	90	90
McCutrie		20	20	20	20	20	20	20	20	20	20	20
Onulla		20	20	20	20	20	20	20	20	20	20	20
Pinetree		20	20	20	20	20	20	20	20	20	20	20
Pineville		36	36	36	36	36	36	36	36	36	36	36
Rama		24	24	24	24	24	24	24	24	24	24	24
Randersville		120	120	120	120	120	120	120	120	120	120	120
Thomasville		90	90	90	90	90	90	90	90	90	90	90
Wadwell		180	180	180	180	180	180	180	180	180	180	180
West Point		90	90	90	90	90	90	90	90	90	90	90
Willacocche		45	45	45	45	45	45	45	45	45	45	45
Collegiate Institute		45	45	45	45	45	45	45	45	45	45	45
IDABO.												
Boise		240	240	240	240	240	240	240	240	240	240	240
Cambridge		36	36	36	36	36	36	36	36	36	36	36
Idaho Falls		216	216	216	216	216	216	216	216	216	216	216
Julesburg		72	72	72	72	72	72	72	72	72	72	72
Lapsal		36	36	36	36	36	36	36	36	36	36	36
Lepwai High School		270	270	270	270	270	270	270	270	270	270	270
Madison		36	36	36	36	36	36	36	36	36	36	36
Mt. Vernon		36	36	36	36	36	36	36	36	36	36	36
New Plymouth		16	16	16	16	16	16	16	16	16	16	16
Parma		36	36	36	36	36	36	36	36	36	36	36
Payette		180	180	180	180	180	180	180	180	180	180	180
Pocatello		72	72	72	72	72	72	72	72	72	72	72
Rigny		45	45	45	45	45	45	45	45	45	45	45
Spirit Lake		45	45	45	45	45	45	45	45	45	45	45
Star		72	72	72	72	72	72	72	72	72	72	72
Twin Falls		36	36	36	36	36	36	36	36	36	36	36

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.							
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25							
ILLINOIS.																															
Abingdon.....	High School.....	E	36	36	36	36	X					X	X	X	X	X	X	X	X												
Albion.....	do.....	E	54	54	54	54	X	\$340	A. N.	P. C.	X	X	X	X	X	X	X	X	X	50											
Alton.....	do.....	E	54	54	54	54	X	850	P. C. V.	P. C. V.	X	X	X	X	X	X	X	X	X	100	50	\$100									
Arrestville.....	do.....	E	45	45	38	38	X					X	X	X	X	X	X	X	X	5											
Arthur.....	do.....	E	36	36	36	36	X					X	X	X	X	X	X	X	X	25											
Auburn.....	do.....	E	36	36	36	36	X					X	X	X	X	X	X	X	X	5											
Aurora.....	do.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X	150	50										
Barrington.....	East High School.....	E	150	150	150	150	X		950	A. N.	P. C.	X	X	X	X	X	X	X	X	100	25	100									
Batavia.....	do.....	E	40	40	40	40	X					X	X	X	X	X	X	X	X	100	6										
Bellville.....	do.....	E	150	150	150	150	X					X	X	X	X	X	X	X	X	100	25	100									
Bellmont.....	Lincoln School.....	E	150	150	150	150	X		900	N.	P. C.	X	X	X	X	X	X	X	X	100	6										
Bowen.....	do.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X												
Braceville.....	do.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X												
Bridgeport.....	Bridgeport Township High School.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X												
Brighton.....	do.....	E	47	72	72	72	X					X	X	X	X	X	X	X	X	25	4										
Broadlands.....	do.....	E	72	72	72	72	X					X	X	X	X	X	X	X	X												
Brookfield.....	do.....	E	60	60	60	60	X					X	X	X	X	X	X	X	X												
Brooklyn.....	do.....	E	36	36	36	36	X					X	X	X	X	X	X	X	X	15											
Brookport.....	do.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X	50	6										
Buckhannon.....	do.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X	40											
Buffalo.....	do.....	E	180	180	180	180	X					X	X	X	X	X	X	X	X	300	100										
Burlington.....	do.....	E	30	30	30	30	X					X	X	X	X	X	X	X	X												
Camden.....	do.....	E	24	24	24	24	X		630	V.	P. C. V.	X	X	X	X	X	X	X	X	300	100										
Cambridge.....	do.....	E	54	54	54	54	X		200	P. C. V.	P. C. V.	X	X	X	X	X	X	X	X	10											
Camden.....	do.....	E	54	54	54	54	X		720	P. C. V.	P. C. V.	X	X	X	X	X	X	X	X	50											
Canton.....	do.....	E	54	54	54	54	X					X	X	X	X	X	X	X	X	50											

School	City	Enrollment	Art	Technical	Practical	Engineering	Other	Value	Equipment	Faculty	Notes
Cadlin	do	18	18	15	18			0			
Cedarville	do	18	20	4	4			0			
Carro Gardo	do	60	60	45	45			0			
Chapin	do	20	20	20	20			0			
Chicago											
Bowen High School		67	67	134	134			0			
Calumet High School								0			
Carl Schurz High School								0			
Crane Technical High School		160	160	160	160			0			
Curtis (Geo. Wm.) High School		80	80	80	80			0			
Lake High School		67	67	134	134			0			
Lane Technical High School								0			
Marshall High School								0			
Murray F. Juley High School		80	80	160	160			0			
Waller High School		80	80	80	80			0			
William McKinley High School		80	80	160	160			0			
Bloom Township High School		80	80	160	160			0			
Chillicothe Township High School		36	36	36	36			0			
Chicago Heights											
Chillicothe											
Cicero											
Clinton											
Cobden											
Cedarville											
Cropey											
Decatur											
De Kalb											
De Land											
Des Plaines											
Dixon											
Downers Grove											
Dunlap											
East Moline											
East Peoria											
East St. Louis											
Edinburg											
Elgin											
Elsworth											
Evanston											
Fairbury											
Farmer City											

1 in normal, 1 in art, and 1 in engineering school.

3 Art schools and schools of engineering.

1 art, 1 normal, 1 technical, 1 practical.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he superior of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.				
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.									
ILLINOIS—contd.																												
Farmington.	High School.	E	54	54	54	54	X	\$500	A.	C.	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	\$150
Franklin.	do.	E	72	72	72	72	0	640	N.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Fulton.	do.	E	72	72	72	72	X	640	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Galva.	do.	E	72	72	72	72	X	640	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Gardner.	do.	E	72	72	72	72	X	640	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Garnett.	do.	E	72	72	72	72	X	640	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Geneseo.	Geneseo Township High School.	R	72	72	72	72	0	1,100	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Geneseo.	High School.	R	72	72	72	72	0	1,100	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Gibson City.	Drummer Township High School.	E	108	108	108	108	X	1,100	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125
Giffard.	High School.	R	60	60	60	60	0	400	A.	C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Glasstone.	do.	R	0	0	0	0	0	400	A.	C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250
Griffey.	do.	R	72	72	72	72	0	400	A.	C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250
Harvey.	do.	R	72	72	72	72	0	400	A.	C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250
Highland Park.	High School.	E	54	54	54	54	0	450	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	750
Hinsdale.	Union High School.	E	112	112	112	112	0	585	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	600
Hopkinton.	High School.	E	40	50	60	60	0	900	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Hopedale.	do.	E	54	54	54	54	0	900	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Huntley.	do.	E	36	36	36	36	0	1,000	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Jacksonville.	do.	E	54	54	54	54	0	1,000	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350
Joliet.	Joliet Township High School.	E	70	70	70	70	0	810	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,800
Kewanee.	High School.	E	57	57	57	57	0	810	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000
Kewanee.	do.	E	135	135	135	135	0	810	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500





TABLE IV.—Drawing in public high schools.—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.					Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.	School work.						Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.							
																			13						14
Arizona—	Princeton Township High School	E	54	54	54	54	X	X	\$600	A.	C.	X	X	X	X	X	X	X	X	X	X	26	\$100	X	\$600
	Salvadora-Brookfield High School	E					X	X	350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	100	275	X	1,500
	Bartlett High School	E	60	60	60	60	X	X	300	A.	P. C.	X	X	X	X	X	X	X	X	X	X	26	300	X	300
	Rock Island	E	72	72	72	72	X	X	945	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	50	50	X	50
	Beverly Township High School	E	54	54	54	54	X	X	300	N.	P. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	0
	St. Charles High School	E	54	54	54	54	X	X	300		P.	X	X	X	X	X	X	X	X	X	X	90	15	X	15
	St. Francisville	E	144	108	108	108	0	0				X	X	X	X	X	X	X	X	X	X	0	0	X	0
	Sourthern	E	18	18	18	18	X	X	450	A.	C.	X	X	X	X	X	X	X	X	X	X	12	20	X	400
	Warren	E	120	120	120	120	X	X			P.	X	X	X	X	X	X	X	X	X	X	50	100	X	100
	Shirley	E	108	108	108	108	X	X	1,400		P.	X	X	X	X	X	X	X	X	X	X	17	40	X	120
	Stamington	E	108	108	108	108	X	X	1,000		P. C. V.	X	X	X	X	X	X	X	X	X	X	50	1,000	X	1,200
	Streator Township High School	E					X, 2	X			P. C. V.	X	X	X	X	X	X	X	X	X	X	16		X	25
	Super Grove	E	72	72	72	72	X	X	540		P.	X	X	X	X	X	X	X	X	X	X	25		X	700
	Sumner	E	72	72	72	72	X	X	750		P. C.	X	X	X	X	X	X	X	X	X	X	175		X	50
	Taylorville	E	72	72	72	72	X	X	750		P. C.	X	X	X	X	X	X	X	X	X	X	25	10	X	50
	Thomas	E					X	X			V.	X	X	X	X	X	X	X	X	X	X	0	0	X	0
	Thomas Township High School	E					X	X			V.	X	X	X	X	X	X	X	X	X	X	100	10	X	0
	Thomson	E					X	X			V.	X	X	X	X	X	X	X	X	X	X	4	0	X	0
	Thornton	E					X	X	698	A. N.	P.	X	X	X	X	X	X	X	X	X	X	0	0	X	0
	Tower Hill	E					X	X			P.	X	X	X	X	X	X	X	X	X	X	0	0	X	0
	Union Township High School	E					X	X			V.	X	X	X	X	X	X	X	X	X	X	0	0	X	0
	Union	E					X	X			P.	X	X	X	X	X	X	X	X	X	X	0	0	X	0
	Virginia	E					X	X	698	A. N.	P.	X	X	X	X	X	X	X	X	X	X	0	0	X	0







TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
I	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
ILLINOIS—contd.																									
Greenwood.....	Center Grove High School.....	R	26	26	36	36	X	\$630	N.	P. C. V.	0	X	X	X	X	X	X	X	\$100	0	0	0	0	0	0
do.....	Clark Township High School.....	R	19	19	19	19	X	540	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Greentown.....	High School.....	R	50	50	50	50	X	540	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hamilton.....	do.....	R	24	24	24	24	X	128	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hammond.....	Chicago Township High School.....	R	144	144	144	144	X	1,100	N.	P. C. V.	0	X	X	X	X	X	X	X	200	0	0	0	0	0	0
Hanna.....	do.....	R	18	18	18	18	X	540	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Harlem.....	do.....	R	24	24	24	24	X	540	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Harford City.....	do.....	R	24	24	24	24	X	675	N.	P. C. V.	0	X	X	X	X	X	X	X	150	0	0	0	0	0	0
Hinsdale.....	do.....	R	24	24	24	24	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hillsboro.....	do.....	R	24	24	24	24	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hobart.....	Hobart Township High School.....	R	23	23	23	23	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hobart.....	High School.....	R	73	73	73	73	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hokendunk.....	do.....	R	26	26	26	26	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hokendunk.....	do.....	R	26	26	26	26	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hops.....	do.....	R	24	24	24	24	X	614	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hove.....	Lima Consolidated High School.....	R	24	24	24	24	X	630	A.	P. C.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hydman.....	High School.....	R	24	24	24	24	X	630	A.	P. C.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Huntingbury.....	do.....	R	24	24	24	24	X	630	A.	P. C.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Huntington.....	do.....	R	24	24	24	24	X	108	N.	P. C.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Huntington (R. F. D. No. 3).....	do.....	R	24	24	24	24	X	108	N.	P. C.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Hynes.....	do.....	R	20	20	20	20	X	188	N.	P. C.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Indianapolis.....	High School.....	R	24	24	24	24	X	675	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
do.....	do.....	R	81	81	81	81	X	675	N.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
do.....	Manual Training High School.....	R	54	54	54	54	X	1,100	A.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
do.....	do.....	R	54	54	54	54	X	1,100	A.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
do.....	do.....	R	270	270	270	270	X	1,200	A.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
do.....	do.....	R	270	270	270	270	X	1,200	A.	P. C. V.	0	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Laredo.....	Sheridone High School.....	R	36	36	36	36	X	1,350	A. N.	P. C.	0	X	X	X	X	X	X	X	10	0	0	0	0	0	0
Laredo.....	High School.....	R	36	36	36	36	X	1,350	A. N.	P. C.	0	X	X	X	X	X	X	X	10	0	0	0	0	0	0

DRAWING IN PUBLIC HIGH SCHOOLS.

Location	Enrollment	Drawing	Art	Music	Physical Education	Industrial Arts	Home Economics	Foreign Languages	Other	Notes
Amherst	720	X	X	X	X	X	X	X	X	P.C.V.
do.	765	X	X	X	X	X	X	X	X	P.C.V.
do.	675	X	X	X	X	X	X	X	X	P.C.V.
do.	540	X	X	X	X	X	X	X	X	P.C.V.
do.	1,000	X	X	X	X	X	X	X	X	P.C.V.
do.	540	X	X	X	X	X	X	X	X	P.C.V.
do.	630	X	X	X	X	X	X	X	X	P.C.V.
do.	630	X	X	X	X	X	X	X	X	P.C.V.
do.	675	X	X	X	X	X	X	X	X	P.C.V.
do.	685	X	X	X	X	X	X	X	X	P.C.V.
do.	225	X	X	X	X	X	X	X	X	P.C.V.
do.	1,700	X	X	X	X	X	X	X	X	P.C.V.
do.	810	X	X	X	X	X	X	X	X	P.C.V.
do.	630	X	X	X	X	X	X	X	X	P.C.V.
do.	720	X	X	X	X	X	X	X	X	P.C.V.
do.	600	X	X	X	X	X	X	X	X	P.C.V.
do.	540	X	X	X	X	X	X	X	X	P.C.V.
do.	675	X	X	X	X	X	X	X	X	P.C.V.
do.	560	X	X	X	X	X	X	X	X	P.C.V.
do.	225	X	X	X	X	X	X	X	X	P.C.V.
do.	765	X	X	X	X	X	X	X	X	P.C.V.
do.	585	X	X	X	X	X	X	X	X	P.C.V.
do.	599	X	X	X	X	X	X	X	X	P.C.V.
do.	599	X	X	X	X	X	X	X	X	P.C.V.

Several

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.								
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.													
IDAHOA—contd.																																
	Washington City (R. F. D. No. 2), High School.	E	36	36	36	36				P.																						
	Idaho Falls, High School.	R	36	36	36	36		\$450	N.	C.																						
	Idaho Falls, High School.	R	50	50	50	55																										
	Idaho Falls, High School.	R	24	24	24	24		480	A.	C.																						
	Milroy (R. F. D. No. 16), High School.	R	26	26	26	28	X	720	N.	C.																						
	Idaho Falls, High School.	E	120	120	120	120	X	720	A. N.	P. C. V.																						
	Idaho Falls, High School.	R, E	36	36	0	0		810	A. N.	P. C.																						
	Idaho Falls, High School.	R	0	0	0	0																										
	Idaho Falls, High School.	R	10	13	13	13	X	518	A. N.	C.																						
	Idaho Falls, High School.	R	32	32	32	32	X	730	N.	C. V.																						
	Idaho Falls, High School.	R	135	135	135	135	X	675	N.	P. C.																						
	Idaho Falls, High School.	R	27	27	27	27	X																									
	Idaho Falls, High School.	R	21	21	21	21	X																									
	Idaho Falls, High School.	E	42	42	42	42	X																									
	Idaho Falls, High School.	E	42	42	42	42	X																									
	Idaho Falls, High School.	R	42	42	42	42	X																									
	Idaho Falls, High School.	R	27	27	27	27	X																									
	Idaho Falls, High School.	R	36	36	36	36	X																									
	Idaho Falls, High School.	R	27	27	27	27	X																									
	Idaho Falls, High School.	R	27	27	27	27	X																									
	Idaho Falls, High School.	R	16	16	16	16	X																									
	Idaho Falls, High School.	E	72	72	72	72	X																									
	Idaho Falls, High School.	E	300	300	300	300	X																									
	Idaho Falls, High School.	E	300	300	300	300	X																									
	Idaho Falls, High School.	E	300	300	300	300	X																									











TABLE IV.—Drawing in public high schools—(continued).

1 Location.	2 Name of high school.	3 Required or elective?	4 Hours per year devoted to drawing.				8 Special teacher employed?	9 Is he supervisor of drawing in the grades?	10 Salary of high-school drawing teacher.	11 His training.	12 Work practical, cultural, or vocational?	13 Mechanical and free-hand drawing separate courses?	14 Drawing applied to—								21 Approximate cost of drawing equipment.	22 Volumes in the art library.	23 Value of school art museum, reference material, etc.	24 Art decorations in school-rooms?	25 Cost of such decorations.		
			5 First year.	6 Second year.	7 Third year.	8 Fourth year.							15 School work.	16 Maid craft.	17 Leather craft.	18 Textile craft.	19 Pottery craft.	20 Wood craft.	26 Local activities.								
<b>ILLINOIS.</b>																											
1	High School	E	36	36	36	36	X	6880	N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	\$150
	do	E	54	54	54	54	X	675	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
	do	R	27	27	27	27	X	540	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
	do	R	24	24	24	24	X	625	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300
	do	E	90	90	90	90	0	960	A.	C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
	do	R	32	32	32	32	0			C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
<b>IOWA.</b>																											
	High School	E	135	135	135	135	X		N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	75
	do	E	60	60	75	75	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
	do	E	60	60	60	60	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
	do	E	60	60	60	60	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
	do	E	36	36	36	36	0			P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
	do	E	36	36	36	36	0			P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
	do	E	18	18	54	54	0			P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
	do	E	54	54	54	54	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	do	E	36	36	36	36	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
	do	E	72	72	72	72	0			C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250
	do	R	30	30	30	30	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
	do	R	30	30	45	60	0			P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Requested or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of each decoration.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.					
I			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
			45	45	45	45	0	0	\$675	A.	P. C.	X	X	X	X	X	X	X	0	\$150	10	\$50	X	\$75
			76	76	76	76	X	X	720	N.	P. C.	0	0	0	0	0	0	0	0	0	25	0	X	200
			81	81	81	27	X	X		N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	X	10
			48	60	60	60	0	0	640	A.	P.	0	0	0	0	0	0	0	0	0	1,000	0	X	60
			38	38	38	38	0	0	675	N.	V.	0	0	0	0	0	0	0	0	0	100	0	X	60
			60	72	72	60	0	0	450	N.	V.	0	0	0	0	0	0	0	0	0	0	0	X	100
			45	45	45	60	0	0	585	N.	V.	0	0	0	0	0	0	0	0	0	0	0	X	100
			135	135	135	60	0	0	850	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	X	100
			105	105	105	105	0	0	540	N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	X	100
			24	24	24	30	0	0	450	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	X	100
			24	24	24	30	0	0	765	N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	X	100
			60	60	60	60	0	0	855	N.	V.	0	0	0	0	0	0	0	0	0	0	0	X	100
			72	60	60	60	0	0		N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	X	100
			27	27	27	27	0	0				0	0	0	0	0	0	0	0	0	0	0	X	100
			26	26	26	26	0	0				0	0	0	0	0	0	0	0	0	0	0	X	100
			12	12	12	13	0	0				0	0	0	0	0	0	0	0	0	0	0	X	100
			74	74	74	74	0	0				0	0	0	0	0	0	0	0	0	0	0	X	100



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he superior of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and hand-drawing separate courses?	Drawing applied to—								Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Galena	High school	E	27	54	54	0	0	0			P. C.	0		X									X		\$200
Galva	do	E	45	60	60	60	0	0			P. V.	0		X						\$10	0		X		50
Garden City	do	E	45	45	45	45	0	0			P. C.	0		X							0		X		15
Ges	do	E	108	108	0	0	0	0	\$630		P. V.	X		X						0	0		X		100
Goodland	Sherman County High School	E	60	60	75	90	X	0	608	A.	P. C. V.	0	X	X					25	0	0	X		400	
Great Bend	High School	E	0	0	0	0	0	0	765	A.	P. C.	X		X					50	0	0	X		25	
Herbington	do	E	135	135	135	0	0	0			P. C.	X		X					300	0	0	X		300	
Hobson	do	E	48	48	0	0	X	0	1,200	A. N.	P. V.	0		X					500	0	0	X		40	
Hopewell	do	E	0	0	0	0	0	0			P. V.	0		X					25	0	0	X		50	
Hutchinson	do	E	0	0	0	0	0	0			C. V.	X		X					100	0	0	X		50	
Independence	do	E	0	0	0	0	0	0			P.	X		X					25	0	0	X		15	
Junction City	Montgomery County High School	E	48	48	0	0	X	0	765	A.	P. C.	X		X					300	0	0	X		25	
Kearney	do	E	45	45	0	0	0	0			P. V.	0		X					500	0	0	X		300	
Kiwanee	do	E	134	0	0	0	0	X			C. V.	X		X					25	0	0	X		40	
La Crosse	do	E	0	0	0	0	0	0			C. V.	X		X					25	0	0	X		50	
La Harpe	do	E	0	0	0	0	0	0			P.	X		X					25	0	0	X		50	
Leavenworth	do	E	0	0	0	0	0	0			P.	X		X					25	0	0	X		15	
Lenora	do	E	0	0	0	0	0	0			P.	X		X					25	0	0	X		15	
Lewis	do	E	0	0	0	0	0	0			P.	X		X					25	0	0	X		26	
Lyon	do	E	0	0	0	0	0	0			C. V.	X		X					12	0	0	X		26	
Lyons	do	E	81	68	0	270	X	0	675	N.	C. V.	X		X					12	0	0	X		150	
Maple Hill	do	E	20	20	40	60	0	0			P.	X		X					12	0	0	X		100	
Maple Hill	do	E	20	20	40	60	0	0			P.	X		X					12	0	0	X		100	
Mayetta	do	E	90	90	90	90	X	0			P. C.	X		X					20	0	0	X		25	
Medford	do	E	18	18	18	18	X	0	585	A. N.	P. C.	X		X					20	0	0	X		25	
Missouri	do	E	18	18	18	18	X	0	585	A. N.	P. C.	X		X					20	0	0	X		25	





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.						
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.											
KENTUCKY—Contd.																														
Mount Vernon.	High School.	R	15	15	15	15		0		P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	520	
Newport.	do.	R	120	120	120	120		0		P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	75	
Nicholsville.	do.	R	0	0	0	0		0		P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	25	
Owensboro.	do.	R	0	0	0	0		0		P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	
Paducah.	Lincoln High School (negro).	R	25	25	33	33		0	A	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8	
Parr.	High School.	R	54	54	54	54		0		P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	500	
Rowland.	Graded and High School.	R	54	54	54	54		0		P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	175	
Somersel.	High School.	R	90	90	90	90		0		P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	
Sturgis.	do.	R						0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Winchester.	do.	E						0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LOUISIANA.																														
Abbeville.	High School.	R	48	48	48	48		540	A	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Amite.	do.	R	48	48	48	48		585	A	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Arcadia.	do.	R	36	36	36	36		500	A	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Baton Rouge.	do.	R	54	54	54	54		675	A	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Berwick.	do.	R	54	54	54	54		540	A	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Boycie.	do.	R	48	48	48	48		585	N	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Brusly.	do.	R	27	27	27	27		540	N	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Bunkie.	do.	R	72	72	72	72		540	N	P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Casato.	do.	R	60	60	75	75		540	A	P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Cheneyville.	Grand Prairie High School.	R	48	48	48	48		585	N	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Cloutier.	High School.	R	72	72	72	72		540	N	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Die Bldde.	do.	R	54	54	54	54		540	A. N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Denaldenville.	do.	R	54	54	54	54		540	A. N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Erma.	do.	R	120	120	120	120		540	A.	P. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Evergreen.	do.	R	72	72	72	72		675	A.	P. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50

Table with columns for School Name, F. C. C., P. C., V., A., N., and numerical values. Rows include schools like Agricultural High School, McDonough High School, Guedan High School, etc., across various locations like Goldonna, Guezna, and Maine.

MAINE.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—						Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.		
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.						Local activities.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
MARIETTA—continued.																									
Divided	High School	E	36	36	36	36	0	X		N.	P. C.	X	X	X	X	X	X	X	X	\$25	2	\$5	0	0	
Lewiston	Jordan High School	R 1	76	76	76	76	0	X			P. C.	X	X	X	X	X	X	X	X	500	0	0	0	0	
Medison	High School	E 3	54	54	54	54	0	X	\$240		P. C.	X	X	X	X	X	X	X	X	200	0	0	0	0	
Purand	Drawing High School	E	0	135	135	135	0	0	1,400		V.	X	X	X	X	X	X	X	X	500	0	0	0	0	
Rockland	High School	E	54	54	54	54	0	X			P. C.	X	X	X	X	X	X	X	X	0	0	0	0	0	
St. Agatha	do.	R	27	27	27	27	0	X	900	A.	P. C.	X	X	X	X	X	X	X	X	0	0	0	0	0	
Sandford	do.	R	18	18	18	18	0	X	600	A.	P.	X	X	X	X	X	X	X	X	25	0	0	0	0	
Sangerville	do.	R	18	18	18	18	0	X	900	A.	P.	X	X	X	X	X	X	X	X	0	0	0	0	0	
Sharpleigh	Lindsay High School	E	27	27	27	27	0	X	505	N.	C.	X	X	X	X	X	X	X	X	20	12	107	0	0	
Skowhegan	High School	E	54	54	54	54	0	X	300	A.	P. C.	X	X	X	X	X	X	X	X	100	0	0	0	0	
Thomaston	do.	R	30	30	30	30	0	0			P. C.	X	X	X	X	X	X	X	X	0	0	0	0	0	
Wilton	do.	R	36	36	36	36	0	0			P. V.	X	X	X	X	X	X	X	X	800	500	300	0	0	
Washburn	do.	K	72	72	72	72	0	0			V.	X	X	X	X	X	X	X	X	500	0	0	0	0	
Waterville	do.	E	36	36	36	36	0	0			P. V.	X	X	X	X	X	X	X	X	0	0	0	0	0	
Westbrook	do.	E	72	72	72	72	0	0			V.	X	X	X	X	X	X	X	X	0	0	0	0	0	
West Paris	do.	E	72	72	72	72	0	0			V.	X	X	X	X	X	X	X	X	0	0	0	0	0	
Winslow	do.	R	72	72	72	72	0	0			V.	X	X	X	X	X	X	X	X	0	0	0	0	0	
MARTLAND.																									
Baltimore	Baltimore City College	R 2	60	60	60	60	X 2	0	500	A. N.	P. C.	X	X	X	X	X	X	X	X	1,900	125	1,200	0	0	
Do.	do.	E 2	144	144	144	144	X 6	0	500	(C)	P. V.	X	X	X	X	X	X	X	X	9,000	500	500	0	0	
Do.	Eastern High School	R 2	72	72	72	72	X	0	1,200	V.	V.	X	X	X	X	X	X	X	X	0	0	0	0	0	

Do.	High School (negro)	R 2	57	57	24	X	0	0	900		P. C.	X	X	X	X	X	X	X	X	X	X	X	10	0	0	X	250		
Bel Air	High School	R	12	18	40	X	0	0	400	N.	P.																5		
Brunswick	do.	E									P. C. V.	X	X	X	X	X	X	X	X	X	X	X	10	0	0	X	50		
Oacillon	George Bliddle High School				40	X	0	0	850		P.																25		
Chesterdown	High School	R	40	40	48	X	0	0	700		P.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Centerville	do.	R	36	54	54	X	0	0	1,100	N.	P.																25		
Clinton	Suttonville High School	R	48	48	48	X	0	0	0		P.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	25		
Easton	High School	R	48	36	36	X	0	0	0		P.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	25		
Elkton	Geal County High School	R	90	90	90	X	0	0	0		P.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Elkton City	High School	R	54	54	54	X	0	0	0		P.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Federalsburg	Boys' High School	R	48	48	48	X	0	0	0		C.																25		
Fredrick	Girls' High School	R	35	35	35	X	0	0	0		P.																25		
Highstown	Washington County Male High School	R	70	35	70	X	0	0	0		P.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	50		
Howe de Grace	High School	R	48	48	48	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	30		
Laurel	do.	E 2	48	48	48	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	30		
Millington	do.	R	40	40	80	X	0	0	500	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	30		
Oakland	do.	R 2	72	72	72	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	30		
Oxford	do.	R	26	26	26	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	30		
Pittsville	Central School	R	40	40	40	X	0	0	400	N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
St. Michaels	High School	R	72	72	72	X	0	0	855	N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Salisbury	Waconico High School	R	36	36	36	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Snow Hill	High School	R	36	36	36	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Treppie	do.	R	36	36	36	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	50		
Westminster	do.	R	75	40	40	X	0	0	1,050	A. N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	50		
MASSACHUSETTS.																													
Abington	High School	E	54	54	54	X	0	0	550	A. N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	1,250		
Adams	do.	E	27	27	27	X	0	0	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	350		
Amesbury	do.	E	60	60	60	X	0	0	525	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	500		
Andover	Punchard High School	E 3	36	36	36	X	0	0	800	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Arlington	High School	E 3	36	36	36	X	0	0	200	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	100		
Ashland	do.	E	60	60	60	X	0	0	900	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	500		
Attleboro	do.	R	60	60	60	X	0	0	600	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	500		
Barre	Henry Woods High School	E 3	36	36	36	X	0	0	650	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	350		
Belmont	High School	E	68	68	68	X	0	0	800	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	2,000		
Beverly	do.	E	80	80	80	X	0	0	800	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	1,500		
Beverly (Brighton)	Brighton High School	R, E	108	108	108	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	2,000		
Boston	Charlestown High School	R, E	81	81	81	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	1,500		
Boston (Dorchester)	do.	E	81	81	81	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	1,500		
Boston (Dorchester)	Dorchester High School	E	112	112	112	X	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	0	0	0	X	1,500		

Technical schools and universities.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
MALDEN QUARTERS—continued.																									
Boston.	English High School.	E	108	108	180	180	X	0	0	A.	P. C.	X	X	X	X	X	X	X	\$150	0	0	0	0	0	0
Do.	Girls' High School.	E	108	108	108	108	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	300	0	0	0	0	0	0
Do.	High School of Commerce.	E	0	90	90	90	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Boston (Hyde Park).	Hyde Park High School.	E	144	144	144	144	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Boston.	Mechanic Arts High School.	(R) 3	71	71	71	142	X	4	0	(?)	P. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Boston (Roxbury).	Roxbury High School.	R, E	144	144	144	144	X	0	0	A. N.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Boston (South).	South Boston High School.	R, E	108	104	108	108	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Boston (Jamaica Plain).	West Roxbury High School.	R, E	108	108	108	108	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Braintree.	High School.	R, E	30	30	30	30	X	0	0	A.	C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Braintree.	do.	R, E	27	27	27	27	X	0	0	A. N.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Brewster.	do.	R, E	40	40	40	40	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Brockton.	do.	R, E	54	54	54	54	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Brockton.	do.	R, E	90	90	90	90	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Cambridge.	High and Latin School.	E, E	56	56	56	56	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Do.	Ridge Technical School.	E	180	180	180	180	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Canton.	High School.	R, E	40	40	40	40	X	0	0	N.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Chelmsford.	Center High School.	R, E	40	40	40	40	X	0	0	A. N.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Chelsea.	High School.	R, E	77	77	77	77	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Chicopee.	do.	R, E	27	27	27	27	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Clinton.	do.	R, E	48	48	96	96	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Concord.	do.	R, E	50	50	50	50	X	0	0	A.	P. C. V.	X	X	X	X	X	X	X	0	0	0	0	0	0	0
Conway.	do.	R, E	54	54	54	54	X	0	0	A.	P. C.	X	X	X	X	X	X	X	0	0	0	0	0	0	0



DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—						Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.						Local activities.
1			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
MASSACHUSETTS—continued.																								
Malden 1	High School.....	R	54	54	54	54	X	0	\$950	A.	C.	X	X	X	X	X	X	X	X	\$1,000	0	X	X	\$1,000
Mansfield	do	R	26	26	26	26	X	X	400	A.	P.C.	X						X		75	0	X	X	100
Martineau	do	R	80	80	80	80	X	X	400	A.	P.C.V.	X	X	X	X	X	X	X	X	200	0	X	X	350
Mattapan	do	R	36	36	36	36	X	X	400	A.	P.C.	X	X	X	X	X	X	X	X	50	0	X	X	150
Mattapan	do	R	27	27	27	27	X	X	400	A.	P.C.	X	X	X	X	X	X	X	X	50	0	X	X	150
Mattapan	do	R	40	40	40	40	X	X	800	A.	P.C.	X	X	X	X	X	X	X	X	500	0	X	X	3,000
Mattapan	do	R	37	37	37	37	X	X	800	A.	P.C.V.	X	X	X	X	X	X	X	X	600	0	X	X	3,000
Mattapan	do	R	30	30	30	30	X	X	800	A.	P.C.V.	X	X	X	X	X	X	X	X	600	0	X	X	3,000
Mattapan	do	R	80	80	80	80	X	X	800	A.	P.C.V.	X	X	X	X	X	X	X	X	10	0	X	X	200
Mattapan	do	R	48	48	48	48	X	X	400	A.N.	P.C.	X	X	X	X	X	X	X	X	10	0	X	X	1,000
Mattapan	do	R	54	54	54	54	X	X	1,000	A.	P.C.V.	X	X	X	X	X	X	X	X	100	25	X	X	500
Mattapan	do	R	27	27	27	27	X	X	500	A.	P.C.V.	X	X	X	X	X	X	X	X	200	6	X	X	1,000
Mattapan	do	R	36	36	36	36	X	X	800	A.	P.C.V.	X	X	X	X	X	X	X	X	100	0	X	X	600
New Bedford	do	R	60	60	60	60	X	X	1,100	A.	P.C.	X	X	X	X	X	X	X	X	100	0	X	X	600
New Bedford	do	R	60	60	60	60	X	X	1,750	A.	P.C.	X	X	X	X	X	X	X	X	1,000	25	X	X	850
New Bedford	do	R	60	60	60	60	X	X	1,000	A.	P.C.	X	X	X	X	X	X	X	X	175	40	X	X	850
New Bedford	do	R	60	60	60	60	X	X	1,000	A.	P.C.	X	X	X	X	X	X	X	X	500	50	X	X	3,500
North Adams	do	R	400	400	400	400	X	X	1,000	A.	P.C.V.	X	X	X	X	X	X	X	X	75,000	48	X	X	3,500
North Adams	do	R	350	350	350	350	X	X	1,100	A.N.	P.C.V.	X	X	X	X	X	X	X	X	1,000	5	X	X	300
North Andover	do	R	60	60	60	60	X	X	1,000	A.	P.C.V.	X	X	X	X	X	X	X	X	500	15	X	X	300
North Attleboro	do	R	60	60	60	60	X	X	1,000	A.	P.C.V.	X	X	X	X	X	X	X	X	500	5	X	X	300
North Attleboro	do	R	36	36	36	36	X	X	1,000	A.	P.C.	X	X	X	X	X	X	X	X	500	5	X	X	300
North Attleboro	do	R	20	20	20	20	X	X	1,000	A.	P.C.	X	X	X	X	X	X	X	X	500	5	X	X	300
North-Darlington	Smith Middle High School	R	20	20	20	20	X	X	1,000	A.	P.C.	X	X	X	X	X	X	X	X	500	5	X	X	300





DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Requested or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—								Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.							
MASSACHUSETTS—continued.																										
Winstown	Phillips High School	R 1	60	60	120	120	X	3,500	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	5	5	125	X	300
Weymouth	High School	E 1	60	60	0	0	X	700	A. N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	100	25	50	X	200
Woburn	do	E 1	60	60	60	60	X	200	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	1,000	50	50	X	600
Woburn	do	E 3	72	72	72	72	X	200	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	100	0	0	X	500
West Acton	Acton High School	R 1	80	80	80	80	X	750	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	50	25	250	X	900
Westbrook	High School	E 2	50	50	50	50	X	200	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	500	0	150	X	500
West Boylston	do	R 1	27	27	27	27	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	1,000	0	0	X	100
Westfield	do	E 3	27	27	27	27	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	500	25	250	X	900
Weston	do	R 1	27	27	27	27	X	900	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	500	0	0	X	100
Weston	do	E 2	46	46	46	46	X	250	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	150	0	150	X	100
Whitinsville	Northbridge High School.	R 1	27	27	27	27	X	600	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	1,000	0	0	X	500
Whitman	High School.	E 2	36	36	36	36	X	850	A.	P.	X	X	X	X	X	X	X	X	X	X	0	25	0	125	X	125
Whitman	Murdock High School.	E 2	54	54	54	54	X	600	A.	P.	X	X	X	X	X	X	X	X	X	X	0	25	0	125	X	125
Whitman	High School	E	108	108	54	54	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	300	0	0	X	1,000
Whitman	do	E	54	54	54	54	X	700	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	450	0	0	X	3,500
Whitman	do	E	54	54	54	54	X	1,300	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	300	0	0	X	500
Whitman	Classical High School	E	36	36	36	36	X	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	1,000	0	0	X	5,500
Whitman	South High School	E	135	135	135	135	X	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	1,000	0	0	X	1,200
Whitman	High School	E	64	64	64	64	X	1,700	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	1,000	0	0	X	1,200
Whitman	Yarmouth High School	R, E	84	112	112	112	X	700	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	25	15	15	X	100





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he superior of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—									Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.				
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.											
WISCONSIN—cont'd.																														
Harbor Beach.....	High School.....	E	100	100	100	0	X	\$500	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	15	0	\$125	
Homer.....	do.....	D	54	0	0	0	X	700	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	8	0	75	
Houghton.....	do.....	D	24	24	24	0	X	450	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	40	0	80	
Hubbardston.....	do.....	E	54	54	54	64	X	700	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	10	0	300	
Hudson.....	do.....	E	54	54	54	54	X	900	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	25	0	100	
Ionia.....	Hulst High School.....	E	120	120	120	60	X	810	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	25	0	100	
Iron Mountain.....	High School.....	E	67	84	100	0	X	1,000	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	0	0	0	
Jackson.....	East Avenue High School.....	E	76	0	0	0	X	1,000	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	100	0	200	
Kalamazoo.....	Portage Street High School.....	E	108	108	108	108	X	750	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	0	0	683	
Do.....	Woodward Avenue High School.....	E	108	108	108	0	X	600	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	50	2	100	
Letchumby.....	High School.....	E	90	90	90	90	X	650	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	280	0	50	
Lake Umbagog.....	do.....	R	38	38	38	38	X	675	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	0	0	300	
Lake Odessa.....	do.....	E	360	180	180	180	X	1,200	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	100	0	50	
Leland.....	do.....	E	72	72	72	72	X	550	N.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	50	0	500	
Leslie.....	do.....	E	114	114	114	114	X	750	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	50	0	200	
Lewiston.....	do.....	E	114	114	114	114	X	500	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	50	0	200	
Manchester.....	Central High School.....	E	72	72	72	90	X	550	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	0	0	150	
Mayo Rapids.....	High School.....	E	72	72	72	72	X	1,400	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	25	0	300	
Marquette.....	do.....	E	30	30	30	35	X	725	N.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	25	0	500	
Marquette.....	do.....	R	90	90	90	55	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	500	0	100	
Marshall.....	do.....	R	90	90	90	55	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	500	0	100	
Menominee.....	do.....	R	60	60	60	60	X	315	A.	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	0	0	0	
Michigan.....	Menominee County Agricultural School.....	R	27	27	27	27	X	0	0	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	0	0	0	
Michigan.....	High School.....	R	60	60	60	45	X	0	0	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	10	0	0	
Millington.....	do.....	R	60	60	60	45	X	0	0	P. C.	X	X	X	X	X	X	X	X	X	X	0	0	X	X	X	X	10	0	0	

School Name	Enrollment	Value	Materials	Tools	Equipment	Books	Supplies	Other	Total	Notes
Merrie	120	45	107	107	80				250	
Mount Clemens	14								500	
Mount Pleasant	288								500	
Muskegon	107	107	107	107	80				250	
Muskegon Heights	45	45	45	45	45				500	
Nashville	60	60	60	60	60				500	
Nearness	26	26	26	26	26				500	
Nevada	27	27	27	27	27				500	
New Baltimore	180	180	180	180	234				500	
Northville	97	60	60	60	60				500	
Owosso	45	45	45	45	45				500	
Oxford	38	38	38	38	38				500	
Kenilworth	72	72	72	72	38				500	
Perry	108	60	60	60	60				500	
Peterborough	45	45	45	45	45				500	
Reading	38	38	38	38	38				500	
Reynolds	72	72	72	72	72				500	
Romeo	108	60	60	60	60				500	
Rochester	144	144	144	144	60				500	
Saginaw (W. S.)	38	38	38	38	38				500	
St. Johns	135	135	135	135	0				500	
St. Joseph	18	18	18	18	18				500	
Sears	45	45	45	45	60				500	
Schoolcraft	24	24	24	24	36				500	
Shelby	60	60	60	60	60				500	
Shelton	90	90	90	90	90				500	
Sparks	72	72	72	72	72				500	
Stamington	45	45	45	45	45				500	
Stanton	108	108	108	108	108				500	
Tennant	27	27	27	27	27				500	
Thompsonville	81	81	81	81	81				500	
Three Rivers	80	80	80	80	200				500	
Waldfield	48	48	48	48	48				500	
West Branch	48	48	48	48	48				500	
Wyandotte	75	75	75	75	60				500	
Zeland	75	75	75	75	60				500	
<b>MISSISSIPPI</b>										
Ada	144	144	144	144	36				500	
Adrian	72	72	72	72	36				500	
Albany	0	0	144	144	68				500	
Albert Lea	68	68	68	68	68				500	
Alden	24	24	24	24	24				500	
Atoka	48	48	48	48	48				500	
Atwater	48	48	48	48	48				500	

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.					
MINNESOTA—contd.																								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Austin.....	High school.....	E	60	60	75	75	X	X	\$330	A.	P. C. V.	X	X	X	X	X	X	X	X	\$500	25		X	\$500
Barnesville.....	do.....	E	72	160			X	X	765	A.	P. C. V.	X	X	X	X	X	X	X	X	280	30	\$50	X	200
Bemidji.....	do.....	E	108	108	108	108	0	0	585	A.	P. C. V.	X	X	X	X	X	X	X	X	50	25	15	X	250
Blooming Prairie.....	do.....	E	180	180	180	180	X	X	585	A.	P. C. V.	X	X	X	X	X	X	X	X	300	25	50	X	400
Blue Earth.....	do.....	E	0	0	0	0	0	0				0	0	0	0	0	0	0	0	10	0	0	X	60
Breckenridge.....	do.....	E	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0	0	0	X	60
Caledonia.....	do.....	E	0	0	48		0	0	720	A.	P.	X	X	X	X	X	X	X	X	400	10	25	X	300
Cloquet.....	do.....	E	81	54	135		0	0				0	0	0	0	0	0	0	0	50	20		X	400
Cokato.....	School of Agriculture.....	E	30	180			0	0				0	0	0	0	0	0	0	0	200	20		X	100
Cottonwood.....	Greenway High School.....	E	90	90	72	72	0	0				0	0	0	0	0	0	0	0	150	10		X	500
East Grand Forks.....	do.....	R, E	120	120	120	120	X	X	765	N.	P.	X	X	X	X	X	X	X	X	86	10	50	X	300
Elk River.....	do.....	E	45	60	75	75	0	0				0	0	0	0	0	0	0	0	1,000	20	200	X	1,500
Elmore.....	do.....	E	54	54	54	54	0	0	900	A.	P. C. V.	X	X	X	X	X	X	X	X	25	25	40	X	50
Excelsior.....	do.....	E	54	54	54	54	0	0	1,300	A.	P. C. V.	X	X	X	X	X	X	X	X	1,000	50	0	X	400
Fergus Falls.....	do.....	E	54	54	54	54	0	0	650	A. N.	P. C. V.	X	X	X	X	X	X	X	X	200	0	20	X	400
Glencoe.....	do.....	E	140	180	180	180	0	0	765	A.	P. C. V.	X	X	X	X	X	X	X	X	400	50	40	X	200
Grand Rapids.....	do.....	E	50	50	50	50	0	0				0	0	0	0	0	0	0	0	350	100		X	100
Granite Falls.....	do.....	E	50	50	50	50	0	0				0	0	0	0	0	0	0	0	100	50	100	X	400
Hancock.....	do.....	E	72	72	72	72	0	0				0	0	0	0	0	0	0	0	25	25	100	X	300
Harmony.....	do.....	R	60	60	60	60	0	0				0	0	0	0	0	0	0	0	150	120	150	X	500
Hastings.....	do.....	R	60	60	60	60	0	0				0	0	0	0	0	0	0	0	12	12	40	X	400
Herman.....	do.....	R	60	60	60	60	0	0				0	0	0	0	0	0	0	0	250	50	60	X	250
Hinckley.....	do.....	E	60	60	60	60	X	0	935	A.	P. C. V.	0	X	X	X	X	X	X	X	250	50	60	X	250

School	Enrollment	Art Teachers	Art Rooms	Art Materials	Art Exhibitions	Art Clubs	Art Shows	Art Competitions	Art Awards	Art Facilities	Art Programs	Art Budget	Art Staff	Art Hours	Art Success	Art Impact	Art Future	Art Notes
Rocky...	36	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
Hitchcock...	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
do.	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
do.	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
do.	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
do.	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
do.	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
do.	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
do.	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
do.	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258
do.	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
do.	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
do.	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
do.	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
do.	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240
do.	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
do.	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
do.	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127
do.	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
do.	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180
do.	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
do.	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
do.	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
do.	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270
do.	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
do.	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135
do.	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
do.	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
do.	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
do.	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
do.	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72
do.	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
do.	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
do.	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
do.	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106

! One in art school.



DRAWING IN PUBLIC HIGH SCHOOLS.

City	State	School Name	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
Poplarville	Mississippi	Pearl River Co. Agric. High School	R	54	54	54	54	54	54	54										
Port Gibson	Mississippi	High School	R	18	18	18	18	18	18											
Reynolds	Mississippi	do	R	30	32	32	32	32	32											
Veney	Mississippi	Dakay-Veney High School	R	54	54	54	54	54	54											
West Point	Mississippi	Lynch High School	R	54	54	54	54	54	54											
MISSOURI																				
Armstrong	Missouri	Franklin High School	R	180	100	60	50	50	50											
Bedford	Missouri	High School	R	90	90	120	120	120	120											
Blue Springs	Missouri	do	R	26	26	26	26	26	26											
Burns	Missouri	Washington High School (negro)	R	60	75	90	135	135	135											
Bowling Green	Missouri	High School	R	54	54	54	54	54	54											
Browning	Missouri	do	R	60	60	45	45	45	45											
California	Missouri	do	R	180	180															
Carthage	Missouri	do	R	180	180															
Cassville	Missouri	do	R	180	180	180	180	180	180											
Centralia	Missouri	do	R	45	45	45	45	45	45											
Chester	Missouri	do	R	36	36	36	36	36	36											
Chillicothe	Missouri	do	R	30	30	30	30	30	30											
Clayton	Missouri	do	R	0	0	0	0	0	0											
Concordia	Missouri	do	R	0	0	0	0	0	0											
Downing	Missouri	do	R	0	0	0	0	0	0											
Downing Springs	Missouri	do	R	0	0	0	0	0	0											
Farmersburg	Missouri	do	R	144	144	144	144	144	144											
Glennville	Missouri	do	R	500	300	300	300	300	300											
Grant City	Missouri	do	R	60	60	60	60	60	60											
Greenfield	Missouri	do	R	45	45	45	45	45	45											
Hannibal	Missouri	do	R	30	30	30	30	30	30											
Holden	Missouri	do	R	45	45	45	45	45	45											
Houston	Missouri	do	R	0	0	0	0	0	0											
Hunnewell	Missouri	do	R	96	96	96	96	96	96											
Independence	Missouri	do	R	60	60	60	60	60	60											
Jackson	Missouri	do	R	60	60	60	60	60	60											
Jackson City	Missouri	do	R	60	60	60	60	60	60											
Joplin	Missouri	do	R	0	0	0	0	0	0											
Do	Missouri	Central High School (negro)	R	80	80	80	80	80	80											
Do	Missouri	Lincoln High School (negro)	R	80	80	80	80	80	80											
Do	Missouri	Mannual Training High School	R	144	144	144	144	144	144											
Do	Missouri	do	R	150	150	150	150	150	150											
Do	Missouri	Westport High School	R	54	54	54	54	54	54											
Kearney	Missouri	do	R	120	120	120	120	120	120											
Kirksville	Missouri	do	R	120	120	120	120	120	120											
Laclede	Missouri	do	R	60	60	60	60	60	60											
Louisiana	Missouri	Lincoln High School (negro)	R	54	54	54	54	54	54											

Art and technical schools.

16827-14-20





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.					Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and hand-drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.																			
			First year.	Second year.	Third year.	Fourth year.	Metal craft.							Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.																										
MISSOURI—contd.																																												
1	High School.	E	32	32	240	240	240	0	\$405	A. N.	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
	Lewistown.	E	45	45	45	45	45	0	0	0	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
	Malden.	E	45	45	45	45	45	0	0	0	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
	Manfield.	E	270	270	270	270	270	0	0	0	A.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Maplewood.	E	180	180	180	180	180	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	McMillan High School.	E	40	40	40	40	40	0	0	0	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Montgomery City High School.	E	180	180	180	180	180	0	0	0	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Monticello.	E	40	40	40	40	40	0	0	0	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Morley.	R	180	180	180	180	180	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Neesho.	R	45	45	45	45	45	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	New Hampton.	R	45	45	45	45	45	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	New London.	R	42	42	42	42	42	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Oregon.	E	90	90	90	90	90	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Pacific.	R	32	32	32	32	32	0	0	0	P. C.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Parshall.	R	60	60	60	60	60	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Pilot Grove.	E	60	60	60	60	60	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Platte City.	E	60	60	60	60	60	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Pleasant.	E	12	12	12	12	12	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rockville.	R	12	12	12	12	12	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rolla.	R	40	40	40	40	40	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Rosedale.	R	180	180	180	180	180	0	0	0	P.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	St. Charles.	E	150	150	150	150	150	0	0	0	A.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	St. Joseph.	E	135	135	135	135	135	0	0	0	P. C. V.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	St. Louis.	E	135	135	135	135	135	0	0	0	A.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Sumner High School (negro).	R, E	135	135	135	135	135	0	0	0	A.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Yeatman High School.	R, E	135	135	135	135	135	0	0	0	A.	X	X	X	X	X	X	X	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DRAWING IN PUBLIC HIGH SCHOOLS.

School Name	Year	Value	Material	Personnel	Equipment	Other	Total	Notes	
Secalia High School	54	240	54	54	51		500	X X X X X	
Springfield do	54	54	54	54	51		1,000	X X X X X	
Yanduser do	54	54	54	51			200	X X X X X	
MONTANA									
Amsonda High School	54	54	54	51			200	X X X X X	
Billings do	54	54	54	51			800	X X X X X	
Boseman Gallatin County High School	54	54	54	51			2,000	X X X X X	
Butte High School	54	54	54	51			500	X X X X X	
Butte R 1 Beaverhead County High School	54	54	54	51			500	X X X X X	
Butte R 2 Beaverhead County High School	54	54	54	51			500	X X X X X	
Dillon Dawson County High School	54	54	54	51			300	X X X X X	
Gladwin Graded High School	54	54	54	51			2,000	X X X X X	
Harlowton High School	54	54	54	51			200	X X X X X	
Helena Flathead County High School	54	54	54	51			200	X X X X X	
Kalispell Park County High School	54	54	54	51			700	X X X X X	
Livingston Park County High School	54	54	54	51			500	X X X X X	
Miles City Custer County High School	54	54	54	51			500	X X X X X	
Missoula Missoula County High School	54	54	54	51			500	X X X X X	
Townsend Beaverhead County High School	54	54	54	51			100	X X X X X	
Virginia City High School	54	54	54	51			100	X X X X X	
NEBRASKA									
Able High School	54	54	54	51			50	X X X X X	
Alma do	54	54	54	51			250	X X X X X	
Anahey do	54	54	54	51			100	X X X X X	
Arlington do	54	54	54	51			100	X X X X X	
Ashland do	54	54	54	51			100	X X X X X	
Beatrice do	54	54	54	51			100	X X X X X	
Bellwood do	54	54	54	51			100	X X X X X	
Benedict do	54	54	54	51			100	X X X X X	
Benrathman do	54	54	54	51			100	X X X X X	
Bertrand do	54	54	54	51			100	X X X X X	
Bethel do	54	54	54	51			100	X X X X X	
Boehs do	54	54	54	51			100	X X X X X	
Bonanza do	54	54	54	51			100	X X X X X	
Bridgport do	54	54	54	51			100	X X X X X	
Brock do	54	54	54	51			100	X X X X X	
Broken Bow do	54	54	54	51			100	X X X X X	
Brownville do	54	54	54	51			100	X X X X X	
Cadmus do	54	54	54	51			100	X X X X X	
Cook do	54	54	54	51			100	X X X X X	
Crete do	54	54	54	51			100	X X X X X	
Curtis do	54	54	54	51			100	X X X X X	
Dakota do	54	54	54	51			100	X X X X X	
De Witt do	54	54	54	51			100	X X X X X	
Dodge do	54	54	54	51			100	X X X X X	
Douglas do	54	54	54	51			100	X X X X X	
Edgemoor do	54	54	54	51			100	X X X X X	
Edgemoor do	54	54	54	51			100	X X X X X	
Edgemoor do	54	54	54	51			100	X X X X X	
Edgemoor do	54	54	54	51			100	X X X X X	

DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—								Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.				
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.										
NEBRASKA—con.																													
1	High School	E	45	45	45	45	0	0		P. C.	0	X														0	0	0	\$50
	do.	R	60	60	60	60	0	0		P.	0	0	X													0	0	0	50
	do.	R	75	75	75	75	0	0		P.	0	0	0	X												0	0	0	20
	do.	R	90	90	90	18	0	0		P.	0	0	0	0	X											0	0	0	40
	do.	R	0	0	0	0	0	0		P. C.	X	X														0	0	0	50
	do.	R	54	27	27	27	0	0		P.	0	0	X													0	0	0	40
	do.	R	45	45	45	45	0	0		P.	0	X														0	0	0	200
	do.	R	45	45	45	45	0	0		P.	0	X														0	0	0	20
	do.	R	72	144	144	144	0	0		P. V.	X	X														0	0	0	50
	do.	R	36	72	72	72	0	0		C. V.	X	X														0	0	0	550
	do.	R	0	21	21	21	0	0		P. C.	0	X														0	0	0	50
	do.	R	4	6	6	8	0	0		P.	0	0	X													0	0	0	25
	do.	R	90	60	60	60	0	0		P.	0	0	0	X												0	0	0	20
	do.	R	36	36	36	36	0	0		P.	0	0	0	0	X											0	0	0	20
	do.	R	20	36	36	36	0	0		P. C. V.	0	0	0	0	0	X										0	0	0	300
	do.	R	72	72	72	72	0	0		P. C.	0	0	0	0	0	0	X									0	0	0	50
	do.	R	0	0	0	0	0	0		P.	0	0	0	0	0	0	0	X								0	0	0	200
	do.	R	45	45	60	60	0	0		P.	0	X														0	0	0	200



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>NEBRASKA—COO.</b>																								
Waverly	do	R	36	36	75	75	X	0	\$300	N.	P. C.	0	X						\$10	3		X		\$50
Wayne	do	R	50	50	75	75	X	0			P. C.	0	X						75	12		X		400
Western	do	R					0	0			P. C.	0	X									X		
Wesport	do	R					0	0			P. C.	0	X									X		
York	do	R					0	0			P. C.	0	X									X		50
<b>NEVADA.</b>																								
Elko	Elko County High School.	R	270	270	0	0	X	0		A.	P. C.	0	X						500	0		X		75
Gardnerville	do	R	36	36	36	36	X	0		A.	P. C.	0	X						300	3		X		100
Reno	do	R	36	36	36	36	X	0	845	A. N.	P. C.	X	X						125	31		X		110
Tonopah	do	R	36	36	36	36	X	0	900	N.	P. C.	X	X						6	6		X		50
Winnemucca	Humboldt County High School.	R	36	36	36	36	X	0			P. C.	0	X									X		
<b>NEW HAMPSHIRE.</b>																								
Berlin	High School.	R	143	143	71	29	0	0			V.		X						260	0		X		0
Canaan	do	R	36	36	72	72	0	0			V.		X									X		0
Caremont	Stevens High School.	R	36	36	36	36	X	X	900	A.	P. C.	X	X						25	0		X		200
Concord	High School (Union District).	R	54	54	36	36	X	X	900	A. N.	P. C.	X	X						500	0		X		250
Dover	High School.	R	36	36	72	72	X	X	550	A.	P. C.	X	X						300	0		X		1,000
East Jordan	Conant High School.	R	2	2	2	2	X	X		N.	C.	X	X									X		35
Exeter	Tuck High School.	R	145	145	145	145	X	X		A.	P.	X	X						250	0		X		350
Franklin	High School.	R	42	21	21	21	X	X	530	A.	P. C.	X	X						200	0		X		150



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.				
		First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.									
<b>NEW JERSEY—con.</b>																											
Englewood.	High School.....	108	108	0	0	X	\$1,000	A.	C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	\$400
Flemington.	do.....	90	40	54	54	X	800	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	150
Freehold.	do.....	36	36	54	54	X	800	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200
Frenchtown.	do.....	18	24	24	24	X	800	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10
German Valley.	do.....	36	24	24	24	X	800	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10
Glenside.	do.....	120	120	120	120	X	1,150	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10
Hackensack.	do.....	120	120	120	120	X	1,000	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,485
Haddonfield.	do.....	80	48	48	48	X	1,000	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	300
Haddonfield High School.	do.....	80	48	48	48	X	750	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	260
Harrison.	do.....	80	54	54	54	X	650	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
High Bridge.	do.....	81	54	54	54	X	850	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Hoboken.	do.....	120	120	120	120	X	1,700	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Jarvisburg.	do.....	120	120	120	120	X	900	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Jarvisburg.	do.....	120	120	120	120	X	900	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Jersey City.	do.....	102	102	102	102	X	1,200	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Jersey City.	do.....	102	102	102	102	X	1,200	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Kenilworth.	do.....	60	60	60	60	X	1,400	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	500
Lakewood.	do.....	24	24	24	24	X	850	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Larvikton.	do.....	24	24	24	24	X	850	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50
Madison.	do.....	72	72	72	72	X	900	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	600
Madison.	do.....	72	72	72	72	X	900	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	600
Masstown.	do.....	81	81	81	81	X	740	N.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100
Masstown.	do.....	81	81	81	81	X	740	N.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100
Mays Landing.	do.....	24	24	24	24	X	640	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10
Meriden.	do.....	54	54	54	54	X	900	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100
Meriden.	do.....	54	54	54	54	X	900	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100
Meriden.	do.....	54	54	54	54	X	1,000	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he superior of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art-library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.						
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.											
<b>NEW JERSEY—CON.</b>																														
1	High School	R	80	80	70	65	0	900	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3200	
	do	R	54	54	54	54	X	1,700	A. N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	500	
	do	R	28	50	28	28	0	850	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	376	
	do	R	50	50	50	50	X	850	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	40	
	do	R	27	27	27	27	X	850	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	180	
	do	R	36	36	36	36	0	400	P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>NEW MEXICO.</b>																														
	High School	R	36	36	54	54	0	640	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
	do	R	45	45	30	20	X	640	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
	do	R	48	48	48	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	
	do	R	81	81	81	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	do	R	48	48	48	48	0	900	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
	do	R	150	135	135	0	X	1,575	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	
	do	R	150	75	0	0	X	675	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	do	R	150	75	0	0	X	675	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	do	R	150	75	0	0	X	675	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	do	R	150	75	0	0	X	675	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
<b>NEW YORK.</b>																														
	High School	R	150	150	0	0	X	600	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000
	do	R	57	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	do	R	47	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	do	R	80	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	do	R	54	54	27	27	X	1,000	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	do	R	54	54	27	27	X	1,200	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

1 Location.	2 Name of high school.	3 Required or elective?	4 Hours per year devoted to drawing.				8 Special teacher employed?	9 Is he superior of drawing in the grade?	10 Salary of high-school drawing teacher.	11 His training.	12 Work practical, cultural, or vocational?	13 Mechanical and free-hand drawing separate courses?	14 Drawing applied to—								16 Approximate cost of drawing equipment.	17 Volumes in the art library.	18 Value of school art museum, reference material, etc.	19 Art decorations in school-rooms?	20 Cost of such decorations.												
			5 First year.	6 Second year.	7 Third year.	8 Fourth year.							15 School work.	15 Metal craft.	16 Leather craft.	17 Textile craft.	18 Pottery craft.	19 Wood craft.	20 Local activities.																		
NEW YORK—cont'd.																																					
Brooklyn	Erasmus Hall High School	R 2	54	54	27	27	X	0		P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
Do.	Girls' High School	R 2	60	60	45	15	X	0	652, 650	A.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Buchanan	Union School	R	54	54	54		X	0	(1,200)	C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Buffalo	Central High School	R	52	52	52	52	X	0	(1,200)	C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Do.	Lafayette High School	P, E	108	108			X	0	600	C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Do.	Marian Park High School	P, E	54	54	54	54	X	0	(1,200)	P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Do.	Technical High School	R	107	107	107	107	X	0	(1,200)	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Burdett	Union School	E	72	72			X	0	525	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
California	High School	E	54	54			X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
California	Union School	R	90	90	80	80	X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
California	High School	R	108	108	80	80	X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Camden	High School	P	50	50	30	30	X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Campbell	do.	P	50	50	30	30	X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Camden	High School	P	108	108	108	108	X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Cannonsville	High School	E	108	108	108	108	X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Cannonsville	High School	E	108	108	108	108	X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Cannonsville	High School	E	240	240	240	240	X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Cannonsville	High School	E	23	23	23	23	X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Canton	do.	E	48	48			X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Canton	do.	E	81	81	81	81	X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Canton	do.	E	81	81	81	81	X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Canton	do.	E	60	60			X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Canton	do.	E	60	60			X	0	600	N.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Cape Vincent	do.	R	72	72			X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											
Carthage	do.	R	108	108			X	0			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
NEW YORK—con.																									
Dundee.....	High School.....	R 2	60	60			X	\$650	A. N.	P. C. V.	X	X	X	X	X	X	X	X	X	55	4		X	\$200	
Eastville.....	do.....	E 2	54	72	108	108														25	10		X	25	
East Hamstead.....	do.....	E 2	72	72	108	108														200	10		X	400	
East Randolph.....	do.....	E 2	60	60	60	60														10	6		X	10	
East Rochester.....	Union School.....	E 2	15	15	15	15		X	600		P. C.	X	X	X	X	X	X	X	X	2	2		X	10	
East Rockaway.....	Union School.....	E 2	100	60	60	50			750		P. C.	X	X	X	X	X	X	X	X	100	5		X	10	
East Worcester.....	do.....	E 2	54	54	54	54						X	X	X	X	X	X	X	100	2		X	50		
Eden.....	do.....	E 2	48	48	48	48						X	X	X	X	X	X	X	100	2		X	50		
Edwards.....	do.....	E 2	81	81	81	81						X	X	X	X	X	X	X	70	2		X	60		
Elba.....	High School.....	E 2	60	60	60	60						X	X	X	X	X	X	X	10	10		X	50		
Elbridge.....	Union School.....	E 2	72	72	72	72						X	X	X	X	X	X	X	3	3		X	50		
Ellenburghtown.....	High School.....	E 2	80	80	80	80			650	A. N.	C	X	X	X	X	X	X	X	10	10		X	50		
Elmsburg Depot.....	Union School.....	E 2	54	54	54	54						X	X	X	X	X	X	X	3	3		X	50		
Elmsville.....	High School.....	E 2	144	144	144	144						X	X	X	X	X	X	X	10	10		X	50		
Ellicottville.....	do.....	E 2	54	54	54	54						X	X	X	X	X	X	X	10	10		X	50		
Ellington.....	do.....	E 2	54	54	54	54						X	X	X	X	X	X	X	10	10		X	50		
Ellmanst (L. I.).....	Newton High School.....	R 2	54	54	54	54						X	X	X	X	X	X	X	1,500	3		X	300		
Elmwood.....	High School.....	E 2	60	60	60	60			2,800	A.	P. C.	X	X	X	X	X	X	X	1,500	3		X	300		
Elmira Heights.....	High School.....	E 2	60	60	60	60			800	A.	P. C.	X	X	X	X	X	X	X	500	50		X	500		
Erville.....	Union School.....	E 2	64	64	64	64			600	A.	P. C. V.	X	X	X	X	X	X	X	50	10		X	500		
Evans Mills.....	High School.....	E 2	72	72	72	72						X	X	X	X	X	X	X	50	50		X	300		
Fairport.....	do.....	E 2	108	108	108	108			575	N.	P. C.	X	X	X	X	X	X	X	50	40		X	300		
Falconer.....	do.....	E 2	113	60	60	60			575	N.	P. C.	X	X	X	X	X	X	X	100	100		X	300		
Far Rockaway.....	do.....	R 2	60	60	60	60			2,300	A. N.	P. C. V.	X	X	X	X	X	X	X	2,000	2,000		X	300		
Fayetteville.....	do.....	R 2	60	60	60	60			650	A.	P. C. V.	X	X	X	X	X	X	X	2,000	2,000		X	300		



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—						Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.												
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.						Local activities.											
NEW YORK—contd.																																			
Hillsdale	High School	R	40																																
Albion	do	R	60	60	60	90	0	0	0																									850	
Robert	do	R	60	60	60	90	0	0	0																									25	
Homer	Academy and Union School.	R, 1	72	72	72	180	0	0	0																									250	
Horn	High School.	R	54	54	60	60	0	0	0																									150	
Montez Falls.	do	R	108	108	108	108	0	0	0																									200	
Herkesside	do	R	126	126	90	90	0	0	0																									15	
Kinden Falls	do	R	126	126	90	90	0	0	0																									200	
Hamler	do	R	90	90	90	90	0	0	0																									2,000	
Illion	do	R	72	72	72	72	0	0	0																									15	
Indian Lake	do	(R, 1)	90	90	90	90	0	0	0																									200	
Interlaken	do	R	72	72	72	72	0	0	0																									10	
Irvington	do	R, 1	54	54	54	54	0	0	0																									300	
Isip	do	R, 1	54	54	54	54	0	0	0																									200	
Ithaca	do	R, 1	72	72	72	72	0	0	0																									200	
Jamaica	do	(R, 2)	72	72	72	72	0	0	0																									200	
Jamestown	do	E	85	85	57	57	0	0	0																									2,500	
Jefferson	do	E	101	101	54	54	0	0	0																									10	
Johnstown	do	R, 1	81	81	54	54	0	0	0																									250	
Jordan	do	R, 1	54	54	54	54	0	0	0																									300	
Kenneshaw	do	R	60	60	60	60	0	0	0																									100	
Kessville	do	R	60	60	60	60	0	0	0																										100
Kingston	do	R, 1	81	81	98	98	0	0	0																									600	
Free Academy	Free Academy	R, 1	81	81	81	81	0	0	0																									600	





TABLE IV.—Drawing in public high schools—Continued.

Location	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he superior of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—						Approximate cost of drawing equipment.	Volume in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.		
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.						Local activities.	
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
NEW YORK—contd.																									
Millerd.	High School	R	90	60	0	0	0	0	0				X	X						0	0	0	X	0	\$50
Millbrook	High School	R	90	60	0	0	0	0	0											\$25	0	0	X	0	50
Millerton.	High School.	R	60	60	0	0	0	0	0				X	X						100	0	0	X	0	150
Minerva.	High School.	{E 2}	80	80	40	40	X	0	\$75											100	0	0	X	0	250
Minerva.	High School.	E	75	76	38	38	X	0	600	A.	P.	X	X	X	X	X	X	X	X	100	25	8100	X	0	250
Mohawk.	do.	R, E	72	72	72	72	X	0	0				X	X	X	X	X	X	50	50	10	X	X	150	
Mohawk.	do.	E	53	53	0	0	0	0	0				X	X	X	X	X	X	100	30	50	X	X	200	
Monroe	do.	R, E	90	90	90	90	X	0	200	N.	P.	X	X	X	X	X	X	X	100	100	10	X	X	100	
Monticello	do.	E	60	60	0	0	X	0	0				X	X	X	X	X	X	25	25	0	X	X	100	
Monticello	do.	E	48	48	48	0	X	0	0				X	X	X	X	X	X	25	25	0	X	X	75	
Morris	do.	E	72	72	72	72	X	0	0				X	X	X	X	X	X	10	10	15	X	X	75	
Morrisville	do.	R	0	0	0	0	0	0	0										25	25	0	X	X	35	
Mount Kisco	do.	E	0	0	0	0	0	0	0										25	25	0	X	X	30	
Mount Morris	do.	{E 1}	0	0	0	0	0	0	0				X	X	X	X	X	X	20	15	10	X	X	375	
Mount Union	do.	{E 2}	90	90	0	0	0	0	0				X	X	X	X	X	X	10	10	10	X	X	100	
Mount Vernon	do.	R	0	0	0	0	0	0	0				X	X	X	X	X	X	1,000	50	100	X	X	230	
Naples	do.	R	54	54	0	0	X	0	1,450	A.	P.	X	X	X	X	X	X	X	100	100	50	X	X	500	
Newark	do.	R	53	53	80	80	X	X	550	N.	P.	X	X	X	X	X	X	X	200	200	20	X	X	500	
New Berlin	do.	E	120	120	0	0	0	0	550	A.	P.	X	X	X	X	X	X	X	200	200	20	X	X	500	
Newburgh	Free Academy	E	66	66	33	33	X	0	500		P.	X	X	X	X	X	X	X	250	250	25	X	X	500	
Newburgh	High School.	R	80	80	80	80	X	0	1,000		P.	X	X	X	X	X	X	X	400	400	90	X	X	200	
New Rochelle	do.	{E 2}	60	60	60	60	X	0	2,550	A.	C.	X	X	X	X	X	X	X	8,000	150	150	X	X	1,000	
New York	De Witt Clinton High School.	{E 2}	60	60	60	60	X	0	1,300	A.	C.	X	X	X	X	X	X	X	8,000	150	150	X	X	1,000	
New York	High School of Commerce.	{E 1}	30	30	30	30	X	0	12,650	A. N.	P. C. V.	X	X	X	X	X	X	X	2,000	100	100	X	X	200	



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.												
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.																	
NEW YORK—contd.																																				
Phoenix	High School	R	48	48	48	48	0	\$500	A	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Pine Plains	Seymour Smith Academy	(E) 2	54	54	54	54	0	0		C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Pittsford	High School	E	120	0	0	0	0	0		C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Pittsford	do.	(R) 2	80	80	120	120	0	0	A	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Poland	do.	(E) 2	60	60	60	60	0	0		C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Port Chester	do.	R, E	90	90	86	86	0	0		P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Port Jervis	do.	R, E	90	30	30	30	0	0	L 150	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Port Leyden	do.	E	90	90	90	90	0	0	750	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Pottsville	do.	E	60	60	60	60	0	0	575	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Port Washington	do.	R	114	92	92	92	0	0	900	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Frausburg	Franklin Academy and Frausburg High School.	R	114	92	92	92	0	0	900	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Potsdam	Academy	R	48	48	48	48	0	0	550	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Randolph	High School	R	48	48	48	48	0	0	500	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rayns	do.	R	60	30	0	0	0	0	0	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Red Creek	do.	R, E	81	14	0	0	0	0	0	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Hook	Union School	R	48	48	48	48	0	0	0	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rensselaer	High School	(R) 1	54	54	54	54	0	0	0	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rensselaer Falls	Union School	(E) 3	60	60	60	60	0	0	0	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhinebeck	High School	R	54	54	54	54	0	0	550	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richfield Springs	do.	R	60	60	60	60	0	0	550	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Richville	Union School	R	60	60	60	60	0	0	400	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverhead	High School	F	80	80	80	80	0	0	600	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rochester	West High School	R	135	135	135	135	0	0	1,200	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Do.	West High School	E	135	135	135	135	0	0	1,200	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

School Name	Address	City	State	Year	Value	Material	Equipment	Books	Supplies	Other	Total	Notes
Rome	Free Academy	High School	do	72	72						100	X
Roxbury	do	do	do	200	200						100	X
Rushville	do	do	do	36	36						25	X
Russell	Union School	do	do	120	72						20	X
Rye	High School	do	do	60	60						550	X
Sackett Harbor	Sackett Harbor	do	do	54	54						100	X
Sackett Harbor	Pierston High School	do	do	200	100						150	X
Sag Harbor	High School	do	do	135	135						700	X
St. Regis Falls	do	do	do	80	80						100	X
Salamanca	do	do	do	144	108						250	X
Salem	Washington Academy	do	do	72	72						250	X
Saratoga Lake	High School	do	do	30	60						500	X
Saratoga Springs	do	do	do	60	60						500	X
Savoy	do	do	do	27	27						25	X
Schaghticoke	do	do	do	90	90						100	X
Schenectady	do	do	do	108	108						2,500	X
Schenectady	do	do	do	54	54						100	X
Schoharie	do	do	do	72	72						15	X
Schroon Lake	Union School	do	do	48	48						50	X
Schuyler Lake	do	do	do	81	81						500	X
Schuyler Lake	High School	do	do	6	6						100	X
Scotia	do	do	do	74	54						300	X
Sea Cliff	do	do	do	24	24						100	X
Sea Cliff	do	do	do	50	50						300	X
Shelton Island	do	do	do	50	50						130	X
Sherburne	High School	do	do	60	60						40	X
Sherburne	do	do	do	48	48						200	X
Shortsville	do	do	do	54	54						150	X
Sidney	do	do	do	54	54						500	X
Silver Creek	do	do	do	54	81						100	X
Silver Springs	do	do	do	76	50						60	X
Silver Springs	do	do	do	80	80						300	X
Sinclairville	do	do	do	81	81						600	X
Sodus	do	do	do	48	48						400	X
Solvay	do	do	do	36	36						750	X
Southampton	do	do	do	143	143						365	X
South Dayton	do	do	do	80	80						175	X
South Glens Falls	do	do	do	100	74						250	X
South Glens Falls	do	do	do	74	78						1,000	X
South Glens Falls	do	do	do	44	44						10	X
Spencer	do	do	do	60	60						75	X
Spring Valley	do	do	do	160	160						1,000	X
Springville	Griffith Institute	do	do	54	54						100	X
Springwater	Union School	do	do	57	57						10	X
Staatsburg	do	do	do	60	150						100	X
Stillwater	High School	do	do	60	60						75	X

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.					Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate course?	Drawing applied to—								Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.
			Drawing applied to—																							
			First year.	Second year.	Third year.	Fourth year.	Special year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
NEW YORK—contd.																										
	Union School.	R	54	54	54	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	10	0	0	0	0	0	0
	do.	E	72	72	72	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stony Brook High School.	E	72	72	72	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	E	72	72	72	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stuyvesant High School.	E	72	72	72	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Central High School.	E	54	54	54	27	27	27	27	27	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Do.	E	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	North High School.	E	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	High School.	E	72	72	72	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	64	64	64	64	64	64	64	64	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Central High School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	72	72	72	72	72	72	72	72	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	72	72	72	72	72	72	72	72	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	81	81	81	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	High School.	R	108	54	61	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	51	51	51	0	0	0	0	0	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	81	81	81	81	81	81	81	81	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Leedsburgh High School.	E	76	76	114	76	76	76	76	76	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	High School.	E	76	76	114	76	76	76	76	76	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	High School.	E	120	120	120	120	120	120	120	120	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	High School.	E	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	E	72	72	72	72	72	72	72	72	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	60	60	60	60	60	60	60	60	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Union School.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	do.	R	54	54	54	54	54	54	54	54	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
1	3	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
NORTH CAROLINA—continued.																									
Goldfboro.....	Graded School.....	R	135	135	135	90		0	\$800	P. V.	X	X	X	X	X	X	X	X	\$800	100	\$2,000	X	X	\$50	
Do.....	Falling Creek High School.....	R	72	0	0	0	0	0	0		P.	X	X	X	X	X	X	X	0	0	0	X	X	0	
Hayesville.....	High School.....	E	30	0	0	0	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Henderson.....	Graded School.....	R	36	24	24	12	0	0	0		C.	0	0	0	0	0	0	0	10	0	0	X	X	200	
Hartford.....	do.....	R	36	24	24	12	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
James town.....	High School.....	R	72	72	72	72	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kitred.....	do.....	R	72	72	72	72	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
La Grange.....	Graded School.....	R	72	72	72	72	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Laurinburg.....	do.....	R	72	72	72	72	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Marion.....	High School.....	R	27	27	27	27	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
McKenzie.....	Graded School.....	R	27	27	27	27	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
McKenzie.....	do.....	R	27	27	27	27	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Newbern.....	High School.....	R	27	27	27	27	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oxford.....	do.....	R	27	27	27	27	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pocahontas.....	Graded School.....	R	27	27	27	27	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Roseboro.....	do.....	R	30	30	30	30	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Roanoke.....	do.....	R	30	30	30	35	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scotts Neck.....	do.....	R	30	30	30	30	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Southfield.....	do.....	R	30	30	30	35	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Spring Hope.....	Turlington Graded School.....	R	144	144	144	144	0	0	0	A. N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stantonsbury.....	Graded School.....	R	54	0	0	0	0	0	0		C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Summersville.....	High School.....	R	49	40	40	40	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
F. D. No. 11.....	Bessey High School.....	R	48	48	48	64	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Washington.....	High School.....	R	48	48	48	64	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	
Waynesville.....	do.....	R	60	0	0	0	0	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	

DRAWING IN PUBLIC HIGH SCHOOLS.

SOUTH DAKOTA		High School		Enrollment		Drawing		Other		Total		Percentage		Notes	
City	Enrollment	Drawing	Other	Total	Percentage	Notes	City	Enrollment	Drawing	Other	Total	Percentage	Notes		
Ashtabula	120	72	0	72	60		High School	100	100	0	100	100			
Aurora	150	72	72	144	96		do	100	100	0	100	100			
Arundel	150	180	180	360	240		do	100	100	0	100	100			
Bismarck	135	0	0	0	0		Agricultural High School	100	0	0	100	0			
Bismarck	135	140	0	140	103		High School	100	100	0	100	100			
Carrington	27	81	135	216	129		do	100	100	0	100	100			
Cavalier	81	135	108	324	216		do	100	100	0	100	100			
Cooperstown	108	108	108	324	216		do	100	100	0	100	100			
Edgely	135	0	0	0	0		do	100	0	0	100	0			
Endeavor	135	0	0	0	0		do	100	0	0	100	0			
Enid	135	0	0	0	0		do	100	0	0	100	0			
Fairmount	72	135	135	306	204		do	100	100	0	100	100			
Finley	135	135	135	405	270		do	100	100	0	100	100			
Glen Ullin	54	54	54	162	108		do	100	100	0	100	100			
Granton	135	180	0	315	210		do	100	100	0	100	100			
Harrison	135	180	0	315	210		do	100	100	0	100	100			
Harvey	135	135	0	270	180		do	100	100	0	100	100			
Hopewell	60	120	0	180	120		do	100	100	0	100	100			
Inlay	180	180	0	360	240		do	100	100	0	100	100			
Jamestown	135	36	36	207	138		do	100	100	0	100	100			
Kennmare	135	135	0	270	180		do	100	100	0	100	100			
La Monte	135	135	0	270	180		do	100	100	0	100	100			
Langdon	135	135	0	270	180		do	100	100	0	100	100			
Larimore	60	120	0	180	120		do	100	100	0	100	100			
Linton	135	135	0	270	180		do	100	100	0	100	100			
Madison	36	36	36	108	72		do	100	100	0	100	100			
Mason	135	135	0	270	180		do	100	100	0	100	100			
Mayville	36	40	40	116	77		do	100	100	0	100	100			
McCluskey	135	135	0	270	180		do	100	100	0	100	100			
Mimonska	135	135	0	270	180		do	100	100	0	100	100			
New Rockford	36	36	36	108	72		do	100	100	0	100	100			
Northwood	120	120	0	240	160		do	100	100	0	100	100			
Osborne	54	54	54	162	108		do	100	100	0	100	100			
Pembina	135	54	54	243	162		do	100	100	0	100	100			
Petersburg	135	54	54	243	162		do	100	100	0	100	100			
Robe	135	54	54	243	162		do	100	100	0	100	100			
Ruby	135	54	54	243	162		do	100	100	0	100	100			
St. John	135	54	54	243	162		do	100	100	0	100	100			
St. Thomas	135	54	54	243	162		do	100	100	0	100	100			
Starkweather	135	54	54	243	162		do	100	100	0	100	100			
Valley City	135	135	0	270	180		do	100	100	0	100	100			
Vermilion	135	135	0	270	180		do	100	100	0	100	100			
Webster	135	135	0	270	180		do	100	100	0	100	100			
Williston	60	90	90	180	120		do	100	100	0	100	100			



DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, vocational, or cultural?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms.	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
OHIO.																									
Alton.....	Central High School.....	R	96	96	96	96	X	0	\$106	A. N.	P. C.	X	X	X	X	X	X	X	\$2,000	25		X	\$1,500		
Alliance.....	High School.....	R	60	60	60	60	X	0	720	N.	P. C. V.	X	X	X	X	X	X	X	100	50		X	300		
Alpha.....	Beaver Creek Township High School.....	R	54	54	54	54	X	0	720	N.	P. C. V.	X	X	X	X	X	X	X	100	50		X	300		
Athens.....	High School.....	R	0	0	72	72	X	0	630	N.	P. C. V.	X	X	X	X	X	X	X	80	80	200	X	200		
Barberton.....	do.....	E	50	50	50	50	X	0	765	A.	P. C. V.	X	X	X	X	X	X	X	1,500	50	0	X	400		
Basava.....	do.....	E	36	36	36	36	X	0	406	A.	P. C. V.	X	X	X	X	X	X	X	50	50	400	X	50		
Berlin Heights.....	do.....	R	60	60	60	60	X	0	406	A.	P. C. V.	X	X	X	X	X	X	X	50	50	400	X	50		
Beverly.....	do.....	R	60	60	60	60	X	0	406	A.	P. C. V.	X	X	X	X	X	X	X	50	50	400	X	50		
Bloomdale.....	do.....	R	0	0	0	0	X	0			P. C.	X	X	X	X	X	X	X			10	X	50		
Bloomington.....	do.....	R	0	0	0	0	X	0			P. C.	X	X	X	X	X	X	X			10	X	50		
Boston.....	do.....	R	36	36	36	36	X	0	72	N.	P. C.	X	X	X	X	X	X	X	35	10	0	X	50		
Bryant.....	do.....	E	36	36	36	36	X	0	406	A.	P. C.	X	X	X	X	X	X	X	50	52	0	X	200		
Bryant.....	do.....	E	27	27	27	27	X	0	765	A.	P. C.	X	X	X	X	X	X	X	50	52	0	X	200		
Brooklyn.....	do.....	E	27	27	27	27	X	0	765	A.	P. C.	X	X	X	X	X	X	X	50	52	0	X	200		
Canlon.....	do.....	E	72	72	72	72	X	0	406	N.	P. C.	X	X	X	X	X	X	X	400	50	0	X	500		
Cardington.....	Union School.....	E	48	48	48	48	X	0	406	N.	P. C.	X	X	X	X	X	X	X	200	50	0	X	500		
Cassstown.....	High School.....	E	48	48	48	48	X	0	315	A.	P. C.	X	X	X	X	X	X	X	200	50	0	X	500		
Celina.....	do.....	E	48	48	48	48	X	0	630	A.	P. C.	X	X	X	X	X	X	X	135	20	5	X	25		
Chicago Junction.....	do.....	E	48	48	48	48	X	0	630	A.	P. C.	X	X	X	X	X	X	X	135	20	5	X	25		
Chillicothe.....	do.....	E	27	27	27	27	X	0	450	A.	P. C.	X	X	X	X	X	X	X	200	10	10	X	60		
Chicago Junction.....	Walnut Hill High School.....	R	144	144	144	144	X	0	1,800	A. N.	P. C. V.	X	X	X	X	X	X	X	200	10	10	X	1,200		
Chillicothe.....	West Evening High School.....	E	144	144	144	144	X	0	1,800	A. N.	P. C. V.	X	X	X	X	X	X	X	200	10	10	X	1,200		
Do.....	Woodward High School.....	R, E	54	54	54	54	X	0	72,000		P. C.	X	X	X	X	X	X	X	2,000	30		X			
Do.....	do.....	R, E	54	54	54	54	X	0	11,500		P. C.	X	X	X	X	X	X	X	2,000	30		X			



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
OHIO—continued.																								
Glendale	High School	R 1	60	30	30	30	X	X	\$750	A.	P. C.	X	X	X	X	X	X	X	X	\$100			X	\$450
Greenville	do.	E 3	54	54	54	54	X	X	1,000	A. N.	P. C. V.	X	X	X	X	X	X	X	350	50	\$200	X	500	
Grove Hill	do.	R	54	54	54	54	0	0	855	A.	P. C.	0	X	X	X	X	X	X	300	0	0	X	100	
Hamilton	Central High School	E 3	86	86	86	86	X	X	620	N.	P. V.	X	X	X	X	X	X	X	25	10	0	X	10	
Harrison	do.	R	72	72	72	72	0	0	540	A. N.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Harrisonburg	do.	R	144	144	144	144	X	X	620	N.	P. V.	X	X	X	X	X	X	X	25	10	0	X	10	
Hillsboro	do.	E	144	144	144	144	X	X	620	N.	P. V.	X	X	X	X	X	X	X	25	10	0	X	10	
Ironton	do.	E	144	144	144	144	X	X	620	N.	P. V.	X	X	X	X	X	X	X	25	10	0	X	10	
Kalida	do.	R	18	18	18	18	X	X	540	A. N.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Kings Mills	do.	R	54	54	54	54	X	X	540	A. N.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Kinsman	do.	R	108	108	108	108	X	X	540	A. N.	P. C.	X	X	X	X	X	X	X	100	100	0	X	10	
Lakewood	High School	R	36	36	36	36	X	X	540	A. N.	P. C. V.	X	X	X	X	X	X	X	100	100	0	X	10	
Leipsic	do.	R	36	36	36	36	X	X	540	A. N.	P. C. V.	X	X	X	X	X	X	X	100	100	0	X	10	
Levy	do.	R	36	36	36	36	X	X	540	A. N.	P. C. V.	X	X	X	X	X	X	X	100	100	0	X	10	
Lima	do.	E	30	45	45	60	0	0	300	A.	P. C.	0	X	X	X	X	X	X	0	0	0	X	10	
Lisbon	do.	E	30	45	45	60	0	0	300	A.	P. C.	0	X	X	X	X	X	X	0	0	0	X	10	
Lodi	do.	E	24	24	24	24	X	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	100	100	0	X	10	
Lodi	do.	E	27	27	27	27	X	X	1,000	A.	P. C. V.	X	X	X	X	X	X	X	100	100	0	X	10	
Madison	do.	R	27	27	27	27	X	X	720	A.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Mantua (R. F. D.)	Shelbysville Centralized High School	E	27	27	27	27	X	X	720	A.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Martins Ferry	High School	E	27	27	27	27	X	X	585	A.	P. C.	X	X	X	X	X	X	X	100	100	0	X	10	
Marysville	do.	E	0	0	107	0	0	0	585	A.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Niles	do.	E	0	0	107	0	0	0	585	A.	P. C.	X	X	X	X	X	X	X	50	50	0	X	10	
Oberlin	do.	E	90	45	45	45	0	0	0	0	P.	0	X	X	X	X	X	100	100	0	X	10		
Ohio City	do.	E	90	45	45	45	0	0	0	0	P.	0	X	X	X	X	X	100	100	0	X	10		
Olmsted Falls	do.	E	90	45	45	45	0	0	0	0	P.	0	X	X	X	X	X	100	100	0	X	10		

School Name	Address	Enrollment	Value	Year	Material	Equipment	Other	Total	Notes
Ordert (R. F. D. No. 1)	Mohlenberg Township High School	54	54					10	
Osnaburk	High School								
Pataksala (R. F. D. No. 4)	Jersey High School	54	54					50	
Payne	High School	54	54					50	
Phalanx Station	Chalker High School	35	36					25	
Plattsburg	Harmony Township High School	24	34					100	
Pleasant Hill	High School	94	94					100	
Plymouth	High School	24	24					50	
Portage	High School	24	24					50	
Ravenna	High School	40	54					100	
Reynolds	High School	27	27					200	
St. Bernard	High School	48	48					50	
St. Marys	High School	40	40					750	
Seven Mile	High School	27	27					25	
Shelby	High School	48	48					10	
Somersett	High School	40	40					25	
Springfield	High School	50	50					10	
Stout	High School	36	36					25	
Thacker	High School	36	36					25	
Thurston	High School	36	36					25	
Tiffin	High School	135	135					1,000	
Toloso	High School	30	30					300	
Tremont City	High School	27	27					300	
Urbana	High School	54	54					25	
West Carlisle	High School	36	36					25	
West Mansfield	High School	54	54					25	
West Richfield	High School	81	81					20	
Wharton	High School	54	54					75	
Willoughby (R. F. D. No. 2)	Kirtland Township High School	56	56					1,500	
Yellow Springs	High School	270	270						
Youngstown	High School	72	72					15	
OKLAHOMA.									
Adair	High School	72	72					15	
Alton	High School	36	36					50	
Altus	High School	36	36					50	
Archer	High School	90	90					25	
Arapahoe	High School	30	30					25	
Carragee	High School	54	54					25	
Centent	High School	30	30					25	
Centralia	High School	30	30					25	
Chattanooga	High School	30	30					25	
Cordell	High School	68	68					25	
Davenport	High School								
Enid	High School								



School	Enrollment	Art	Music	Physical Education	Industrial Arts	Home Economics	Foreign Languages	Other	Notes
Baker	150	X	X	X	X	X	X	X	
Brookville	60	X	X	X	X	X	X	X	
Coquille	25	X	X	X	X	X	X	X	
Corvallis	250	X	X	X	X	X	X	X	
Echo	1,000	X	X	X	X	X	X	X	
Engrose	40	X	X	X	X	X	X	X	
Falls City	25	X	X	X	X	X	X	X	
Forest Grove	300	X	X	X	X	X	X	X	
Gladstone	23	X	X	X	X	X	X	X	
Gold Hill	15	X	X	X	X	X	X	X	
Grants Pass	250	X	X	X	X	X	X	X	
Hermiston	500	X	X	X	X	X	X	X	
Klamath Falls	1,000	X	X	X	X	X	X	X	
La Grande	40	X	X	X	X	X	X	X	
Leitchfield	25	X	X	X	X	X	X	X	
Levittown	40	X	X	X	X	X	X	X	
Merrill	200	X	X	X	X	X	X	X	
Newburg	15	X	X	X	X	X	X	X	
Oregon City	25	X	X	X	X	X	X	X	
Pendleton	25	X	X	X	X	X	X	X	
Portland	150	X	X	X	X	X	X	X	
Prineville	100	X	X	X	X	X	X	X	
St. Johns	85	X	X	X	X	X	X	X	
St. John's	200	X	X	X	X	X	X	X	
Salem	100	X	X	X	X	X	X	X	
Sheridan	200	X	X	X	X	X	X	X	
Union	100	X	X	X	X	X	X	X	
Union	30	X	X	X	X	X	X	X	
Woodburn	100	X	X	X	X	X	X	X	
PENNSYLVANIA									
Abbotstown	150	X	X	X	X	X	X	X	
Abington	20	X	X	X	X	X	X	X	
Allenwood	20	X	X	X	X	X	X	X	
Ambler	25	X	X	X	X	X	X	X	
Ardmore	500	X	X	X	X	X	X	X	
Arnold	40	X	X	X	X	X	X	X	
Aspinwall	25	X	X	X	X	X	X	X	
Atgeton	25	X	X	X	X	X	X	X	
Athens	300	X	X	X	X	X	X	X	
Auburn	10	X	X	X	X	X	X	X	
Austin	25	X	X	X	X	X	X	X	
Ayr	50	X	X	X	X	X	X	X	
Bangor	25	X	X	X	X	X	X	X	
Beaver	100	X	X	X	X	X	X	X	
Beaver Falls	100	X	X	X	X	X	X	X	
Beje Vernon	100	X	X	X	X	X	X	X	

! One trained in an art school, one in a technical school.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—								Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.												
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.																		
PENNSYLVANIA—continued.																																					
	High School.....	R	40	0	0	0	0	0																													
	Beaumont.....	R	32	64	64	54	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
	Berwick.....	R	54	54	54	54	0	0	\$20	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
	Blanchard.....	R	18	18	18	18	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Bloomington.....	R	18	90	90	90	0	0		N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Bloomington School.....	R	18	90	90	90	0	0		N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
	Blossburg.....	R	24	48	48	48	0	0		N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Bone Hill.....	R	36	36	36	36	0	0		N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Bonsburg.....	R	36	36	36	36	0	0		N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Boswell.....	R	36	36	36	36	0	0		N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Bradford.....	R	36	36	36	36	0	0	288	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	Branchdale.....	R	45	45	45	45	0	0		A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Brookdale.....	R	45	45	45	45	0	0		A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Brookport.....	R	32	32	32	32	0	0		A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Buckingham.....	R	36	36	36	36	0	0		A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Butler.....	R	54	54	54	54	0	0	800	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	Camp Hill.....	R	36	36	36	36	0	0	800	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Canton.....	R	72	72	72	72	0	0	650	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Catsburg.....	R	72	72	72	72	0	0	650	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Chandlers Valley.....	R	45	60	60	60	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Super Grove Township High School.....	R	36	36	36	36	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Chester High School.....	R	86	86	114	114	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Chicoira.....	R	48	48	48	48	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Chillicothe High School.....	R	48	48	48	48	0	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Clearfield.....	R	48	48	48	48	0	0	800	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

School Name	Year	Enrollment	Faculty	Materials	Equipment	Facilities	Notes
Clintondale High School	R	50	15	500	100	X	
Coaldale High School	R	81	10	50	100	X	
Coatsport	R	15	50	50	500	X	
Coatsville	R	30	40	10	100	X	
Collegeville	R	40	40	10	500	X	
Conant	R	40	36	25	0	X	
Conant	R	54	24	25	0	X	
Conant	R	36	36	0	0	X	
Sylvania Township High School	R	32	27	0	0	X	
Corvaton High School	R	27	27	0	0	X	
Crawford (via Pittsburgh)	E	9	9	0	0	X	
Danville	R	54	0	25	0	X	
Defiance	R	32	32	100	150	X	
Dillsburg High School	R	27	27	100	100	X	
Duncansville	R	27	27	15	0	X	
Doyersville	R	27	27	15	0	X	
Drumore	R	32	32	15	0	X	
Drumore	R	18	18	3	0	X	
Dubuois High School	R	108	54	25	0	X	
DuBois	R	60	60	200	200	X	
DuBois	R	36	36	50	0	X	
East Stroudsburg High School	R	15	30	50	0	X	
Edgewood	R	36	36	400	10	X	
Elkins Park High School	R	60	60	600	25	X	
Elk Lick High School	R	27	27	20	0	X	
Elk Lick High School	R	27	27	15	0	X	
Emanus	R	27	27	0	0	X	
Ephrata	R	36	36	400	100	X	
Erie (R. F. D. No. 2)	R	190	190	100	100	X	
Factoryville High School	R	60	60	20	0	X	
Fairview	R	32	32	20	0	X	
Falls Creek	R	36	36	200	25	X	
Ford City	R	36	36	200	0	X	
Fort Fort	R	48	48	50	75	X	
Fortburg	R	48	48	400	52	X	
Franklin	R	0	0	10	0	X	
Friedens	R	0	0	0	0	X	
Saratoga Township High School	R	540	N	0	0	X	
Galeston High School	R	0	0	0	0	X	

1 One trained in an art school, one in a technical school.





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Requirement or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.			
			First year.	Second year.	Third year.	Fourth year.							Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
PENNSYLVANIA—continued.																											
Gettysburg	High School	R	45	45	45	45	X	0	\$340	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	\$250
Girard	Battles Memorial School	R	45	45	45	45	X	0		A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	300
Gordur	High School	R	30	30	30	45	X	0		P. C.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Gondaboro	Lehigh Township High School	R	80	80	80	80	X	0		P. C.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Great Bend	High School	R	80	80	80	80	X	0		P. C.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200
Hanover	do.	R	21	24	24	24	X	0	810	N.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,200
Harrisburg	Central High School	(E) 2	27	27	27	27	X	0	1,150		P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Do.	Technical High School	R	107	101	101	101	X	0	1,100		V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Harboro	High School	R	45	57	57	57	X	0	1,250		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Hawthorn	do.	R	45	57	57	57	X	0	1,250		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200
Hazlehurst	Hamlin Township High School	E	36	36	36	36	0	0			P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10
Herridon	High School	E	16	16	16	16	0	0			P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Hollidaysburg	do.	R	48	48	48	48	X	0	350	A.	P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Honolulu	do.	R	16	16	16	16	0	0			P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500
Hughesville	do.	R	40	40	40	30	0	0			P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	500
Huntingdon	do.	R	18	18	18	18	0	0			P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Indian	do.	R	0	0	0	0	0	0			P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jackson	do.	R	40	40	40	40	0	0	950	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
Jamison City (R. F. D., No. 1)	Sugar Township High School	R	48	48	21	24	X	0			P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Johnsbury	High School	R	40	40	40	24	0	0	675	N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Johnstown	do.	R	24	24	24	24	0	0	855	N.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Kittanning	do.	R	0	0	0	0	0	0			P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Kutztown	do.	R	27	54	54	54	0	0			P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100



TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.					Special teacher employed?	Is he superior of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.										
			First year.	Second year.	Third year.	Fourth year.	Metal craft.							Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.																	
PENNSYLVANIA—continued.																																			
Mifflin	Armagh Township High School	R	36	36	36	36		0			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	350	X	300						
Mifflin	High School	E	70	70	70	25	X	0	\$720	N.																			100	X	300				
Monaca	do.	R	81	81	81	81	X	0	540	N.																			450	X	20				
Monaca	Prospect Park High School.	R	90	90	90	90	X	0			P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			70	X	50				
Morgantown	Caernarvon Township High School.	R	27	27	27	27	X	0			P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			10	X	15				
Morrisville	High School.	R	36	72	72	72	X	0	495	A. N.																			350	X	25				
Mount Jewett	do.	R	20	20	20	20	X	0	180	A.																			30	X	20				
Mount Joy	Harrison Township High School.	R	20	20	20	20	X	0																					225	X	100				
Natrons	do.	R	20	20	20	20	X	0																					300	X	500				
Neshannong	do.	R	90	90	90	90	X	0																							0				
New Bethlehem	Manasquan Township High School.	R	72	72	72	72	X	0																					30	X	15	10			
New Brighton	High School.	R	94	94	94	94	X	0	540	A. N.																									
New London	do.	R	27	27	27	27	X	0																											
Newport	do.	R	25	25	25	25	X	0																											
Newport	do.	R	27	27	27	27	X	0																											
Newtown	do.	R	36	36	36	36	X	0	540	A. N.																									
Nerriatown	do.	R	30	30	30	36	X	0	900	A.																									
Northampton	do.	R	60	60	60	60	X	0																											
North East	do.	R	144	72	72	72	X	0	485	N.																									
North Wales	do.	R	24	24	24	24	X	0																											
Oakmont	do.	R	24	24	24	24	X	0	810	N.																									
Oshtemo	do.	R	27	27	27	27	X	0																											
Palmerston	do.	R	27	27	27	36	X	0																											

School Name	R		18	27		27		27		0	A	P. C. V.	X	X	X	X	X	3	10	
	R 2	E 2	27	27	27	27	27	27												
Palmerston	R																			
Lower Townensing Township High School.																				
High School	R	R 2	27	27	27	27	27	27	27	X	200		X						250	
Parkesburg																				
High School																				
High School	E	R	24	24	24	24	24	24	24	X	450								200	
do.	R		25	25	25	25	25	25	25	X	225								200	
do.	R		22	22	22	22	22	22	22	X	200								200	
Perry Township High School.	R		27	27	27	27	27	27	27	X	200								200	
Phладельphis																				
Central High School.	R	R	180	180	180	180	180	180	180	0	(800)		X						750	
High School for Girls.	R		60	60	30	30	30	30	30	X	1,400								3,200	
do.	R, E		120	120	120	120	120	120	120	X	850									
do.	R		120	120	120	120	120	120	120	X	900									
do.	R		100	100	100	100	100	100	100	X	1000								200	
do.	R		100	100	100	100	100	100	100	X	1000									
do.	R, E		48	48	96	96	96	96	96	X	3,000									
Phoenixville	E		20	20						X	800								200	
Pittsburgh (North Side).	E									X	1,170								25	
Premont Valley	R		32	40							1,200								2	
Portage	R		27																450	
Port Carbon	R		30	30							800								500	
Pocksville	R		72	72	108	108													50	
Quakertown (R. F. Co.)	R																			
Quakertown High School	R	R	24	24	24	24	24	24	24	X	2,000									
do.	R		24	24	24	24	24	24	24	X	900								500	
do.	R		24	24	24	24	24	24	24	X	900								500	
Rahersburg	R	R	54	54	54	54	54	54	54	X	500								50	
Rad Linn	R	R	54	54	54	54	54	54	54	X	500								50	
Raccoon	R	R	36	36	72	72	72	72	72	X	530								50	
Reynolds	R	R	36	36	36	36	36	36	36	X	500								50	
Richboro	R	R	36	36	36	36	36	36	36	X	500								50	
Richboro	R	R	36	36	36	36	36	36	36	X	500								50	
Riversburg	R	R	36	36	36	36	36	36	36	X	500								50	
Roberson	R	R	36	36	36	36	36	36	36	X	500								50	
Rochester	R	R	24	24	24	24	24	24	24	X	150								100	
Rosebud	R	R	60	60	60	60	60	60	60	X	20								30	
Ritledge	R	R	36	36	36	36	36	36	36	X	500								50	

High schools, art schools, and colleges.

Art and technical schools.

DRAWING AND ART IN SCHOOLS.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate course?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.									
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.														
PENNSYLVANIA—continued.																																	
1	Clymer Township High School	R	36	36							X																						
	do	R	60	60	120	120	X		A. N.	P. C.	X																						
	do	R	48	48	48	48	X		A.	P.	X																						
	do	R	48	135	6	68	X		A.	P. C.	X																						
	do	R	120	120	120	120	X		(1,250) (1,300)	P. V.	X																						
	do	R	24	24	24	24	X		A.	P. C.	X																						
	do	R	24	24	120	120	X		A. N.	P.	X																						
	do	R	45	60	75	90	X		A. N.	P.	X																						
	do	R	36	36	36	36	X		A.	P. C.	X																						
	do	R	24	24	24	24	X		A.	P. C.	X																						
	do	R	12	12	12	12	X			P. C.	X																						
	do	R	93	60			X			P. C.	X																						
	do	R	72	68	1	135	X			P. C.	X																						
	do	R	54	81			X			P. C.	X																						
	do	R	54	54			X			P.	X																						
	do	R	54	54			X		A. N.	P.	X																						





City	School Name	R	81	54	54	X	0	550	A.	P.C.	0	0	0	0	0	0	0	0	0	0	0	25	25	25	0	0	1,000	
Charleston	Menninger High and Normal School	R	54	54	36	36	X	0		P.C.	0	0	0	0	0	0	0	0	0	0	0	25	25	0	0	0	1,000	
Columbia	High School	R	54	75	75	75	X	0		P.C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
Kelley	do.	R	90	60	60	60	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
Greenwood	do.	R	54	54	60	60	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
Health Spring	do.	R	90	90	90	90	X	0		P.C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Kingsville	do.	R	90	90	90	90	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
Laurens	Normal and Industrial Institute (Negro)	R	64	64	96	64	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	
Laudon	Graded School	R	32	36	30	40	X	0		P.C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Little Mountain	High School	R	160	80	40	40	X	0		P.C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
McCormick	do.	R	45	45	45	45	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	
St. Matthews	do.	R	45	45	45	45	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
Saluda	do.	R	18	18	18	18	X	0		C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	
Spartanburg	Graded School	R	60	60	60	60	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Yadkinville	Jefferson Graded School (Negro)	R	60	60	60	60	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SOUTH DAKOTA.																												
Aberdeen	Central High School.	E	36	36	36	36	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	
Ashland	High School.	E	270	270	270	270	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
Big Stone City	do.	E	30	30	30	30	X	0	615	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
Bridgewater	do.	R	144	144	144	144	X	0	615	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180	
Britton	do.	R	108	108	108	108	X	0		P.C.V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
Brookings	do.	R	60	45	45	45	X	0		P.C.V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	175	
Chamberlain	do.	R	108	108	108	108	X	0		V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Chickney	do.	R	60	45	45	45	X	0	1,100	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
Clare	do.	R	72	54	54	54	X	0		P.C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
Elban	do.	R	54	54	54	54	X	0		C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
White Lake	do.	E	90	90	90	90	X	0	855	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Yankton	do.	E	36	36	40	40	X	0	450	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225	
TENNESSEE.																												
Ashland City	Cheatham County High School	R	135	135	135	135	X	0	540	N.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Chattanooga	High School.	R	36	36	36	36	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225
Clarksville	do. Hall High School.	R	72	54	54	54	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Covington	High School.	R	72	72	72	72	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Frandeg	do.	R	90	90	90	90	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Grand Junction	High School.	R	75	60	60	60	X	0		V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Humboldt	do.	R	53	80	48	48	X	0		P.C.V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150
Jellico	do.	R	360	360	360	360	X	0	1,200	A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knnoxville	South Knoxville High School	R	45	45	45	45	X	0		P.C.V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lenoir	High School.	R	360	360	360	360	X	0		P.C.V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Memphis	Central High School.	R	0	0	0	0	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Murfreesboro	High School.	R	0	0	0	0	X	0		P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ravencroft	do.	E	0	0	0	0	X	0		V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15





TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Drawing applied to—										Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school-rooms?	Cost of such decorations.	
			First year.	Second year.	Third year.	Fourth year.						School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.									
1			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
<b>TEXAS—con.</b>																											
Ripley	High School	R	90	90	90	90	X	0	\$405	N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	\$50	
Sharon	Training School	R	48	48	46	44	X	0	540	A	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	50	
Sosby	High School	R	184	186	186	190	X	0	540	A	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	200	
Union City	do.	R																									
<b>TEXAS.</b>																											
Albany	High School	R	36	40	45	50	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	50	
Alice	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	600	
Amerville	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	1,000	
Anderson	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	1,000	
Aspermont	do.	R	54	54	54	54	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Bailey	do.	R	72	72	72	72	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	150	
Bonham	do.	R	72	72	72	72	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Brackerville	do.	R	36	36	36	36	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Bremmond	Erskett High School	R	100	100	100	100	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Brenham	High School	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Burnet	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Charlottesville	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Cleveland	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Conroe	do.	R	90	90	90	90	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	100	
Crystal City	do.	R	135	135	135	135	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	200	
Crow	High School (negro)	R	60	60	60	60	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	10	
Dallas	High School	R	60	60	60	60	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	1,000	
Decatur	do.	R	60	60	60	60	X	0	720	A, N	C	0	X	X	X	X	X	X	X	X	X	X	X	X	0	1,000	

Eagle Pass	do.	45	45	45	45																		25	
Edna	do.	48	48	120	160																		85	
do.	High School (negro)	180	180	100	100																		600	
El Paso	do.	84	84	0	0																		30	
Garrison	do.	72	72	0	0																		700	
Garrettsville	do.	90	90	60	60																		300	
Georgetown	do.	90	90	35	35																		10	
Goodnight	do.	90	90	90	90																		10	
Hernleigh	do.	108	108																				50	
Houston Heights	do.	37	34																				50	
Jacksonville	do.	48	48	98	96																		200	
Kearney	do.	60	60	140	140																		30	
Kerrville	do.	140	140																				200	
Ladonia	do.	190	190																				50	
Lexington	do.	135	135																				200	
McAllen	do.	14	54	54																			50	
Marlin	do.	135	135	135	135																		200	
Marietta	do.	90	90																				50	
Matagorda	do.	45	45	60	60																		200	
Mecham	do.	90	90	90	90																		5	
Natchitoches	do.	24	48																				200	
Palm Rock	do.	90	90	90	54	54																	5	
Palsches	do.	90	90																				200	
Pilot Point	do.	60	60	75	75																		50	
Rosenberg	do.	60	60	60	60																		10	
Round Rock	do.	40	40	40	40																		10	
Royce City	do.	54	54	54	54																		50	
San Augustine	do.	54	54	54	54																		50	
San Diego	do.	90	90																				50	
San Saba	do.	60	60	60	60																		50	
Springtown	do.	180	180	270	270																		200	
Stambling	do.	120	120	120	120																		200	
Temple	do.	53	53	53	53																		10	
Tyng	do.	72	72	72	36	36																	5	
Valley View	do.	54	81	81	81	81																	150	
Victoria	do.	54	81	81	81	81																	150	
Weatherford	do.	54	81	81	81	81																	150	
UTAH																								
Bingham Canyon	do.	216	144	0	0																		25	
Boxelder County High School	do.	84	54	54	84																		25	
Huntington	do.	144	144	144	140	140																	60	
Kaysville	do.	144	144	144	140	140																	60	
Orderville	do.	144	144	144	140	140																	60	
Ogden	do.	135	135	135	135	135																	160	
Park City	do.	135	135	135	135	135																	240	

1 One trained in normal school.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.										
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.															
UTAH—continued.																																		
Price.	Carbon County High School.	E	180	180	180	190	0	800	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	\$150			
Salt Lake City.	High School.	E	135	135	133	135	0	0	(?)	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	1,000			
Salt Lake City (Calders Sta.).	Granite High School.	E	108	108	0	0	0	0		P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50	0			
VERMONT.																																		
Bennington.	High School.	R	114	190	190	190	0	800	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0		
Braintree.	do.	E	54	54	54	54	0	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	250	30	0	
Burlington.	do.	E	29	29	29	29	0	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200	0	0	
Frigate.	do.	R	27	27	27	27	0	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2	0	0	
Montpelier.	High School.	R	72	72	72	72	0	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	25	0	100	
North Ferrisburgh.	Middleton High School.	R	54	54	54	54	0	350	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100	0	25	
Montpelier.	do.	R	27	27	27	27	0	650	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	250	0	0	
Rutland.	do.	R	38	38	38	38	0	750	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	100	0	0	
Sr. Albans.	do.	E	180	180	180	180	0	450	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0	300	
White River Junction.	Hartford High School.	E	27	27	27	27	0	450	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20	0	240	
Woodstock.	High School.	E	60	60	60	60	0	0		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300	0	0	
VIRGINIA.																																		
Bridgewater.	High School.	R	60	60	60	60	0	0		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chesapeake.	do.	R	32	32	32	32	0	0		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Culpeper.	do.	R	36	36	36	36	0	0		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland.	do.	R	36	36	36	36	0	0		P. C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





	R, E	135	135	135	135	135	135	(1)	P, C, V.	X	X	X	X	X	X	X	X	X	X	1,500	100	100	2,000
Taoma									P. C. V.	X	X	X	X	X	X	X	X	X	X	150	20	100	100
Stadium High School	R, E	108	108	108	108	108	108		P. C. V.	X	X	X	X	X	X	X	X	X	X	200	10	10	100
Therioton High School	R	285	285	143	143				P. C. V.	X	X	X	X	X	X	X	X	X	X	250	10	10	100
Thompson	R	72	72						P. C. V.	X	X	X	X	X	X	X	X	X	X	25	1	1	50
Vancouver	R, E	108	108	108	108				P. C. V.	X	X	X	X	X	X	X	X	X	X	150	0	0	50
Walsbury	R, E	54	54	54	54				P. C. V.	X	X	X	X	X	X	X	X	X	X	300	0	0	50
Walla Walla	R, E	18	18	18	18				P. C. V.	X	X	X	X	X	X	X	X	X	X	300	0	0	50
Wapato	R, E	36	36	36	36				P. C. V.	X	X	X	X	X	X	X	X	X	X	120	3	0	50
Washtoual	R, E	27	27	27	27				P. C. V.	X	X	X	X	X	X	X	X	X	X	100	3	0	50
Waverly	R, E	24	24	24	24				P. C. V.	X	X	X	X	X	X	X	X	X	X	150	0	0	100
Wenatchee	R, E	24	24	24	24				P. C. V.	X	X	X	X	X	X	X	X	X	X	300	0	0	50
WEST VIRGINIA																							
Academy	R, E	54	54	54	54				P. C.	X	X	X	X	X	X	X	X	X	X	500	6	0	50
Alfred	R, E	18	18	18	18				P. C.	X	X	X	X	X	X	X	X	X	X	300	25	25	35
Beaver High School	R, E	54	54	54	54				P. C.	X	X	X	X	X	X	X	X	X	X	300	0	0	50
Birmingham	R, E	18	18	18	18				P. C.	X	X	X	X	X	X	X	X	X	X	300	0	0	50
Parmont	R, E	26	26	26	26				P. C.	X	X	X	X	X	X	X	X	X	X	120	3	0	50
Hedgenville	R, E	27	27	27	27				P. C.	X	X	X	X	X	X	X	X	X	X	100	3	0	75
Hinton	R, E	24	24	24	24				P. C.	X	X	X	X	X	X	X	X	X	X	150	15	45	50
Douglas High School (negro)	R, E	45	45						P.	X	X	X	X	X	X	X	X	X	X	0	0	0	200
Keyser High School	R, E	27	27	27	27				P.	X	X	X	X	X	X	X	X	X	X	0	0	0	50
Morganstown	R, E	48	48	48	48				P. C.	X	X	X	X	X	X	X	X	X	X	300	0	0	50
New Cumberland	R, E	27	27	27	27				P.	X	X	X	X	X	X	X	X	X	X	0	0	0	200
Oceana	R, E	27	27	27	27				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	50
Parkersburg	R, E	27	27	27	27				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	200
Ronceverte	R, E	48	48	48	48				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	50
Shannon	R, E	36	36	36	36				P. C.	X	X	X	X	X	X	X	X	X	X	30	0	0	50
Stinson	R, E	54	54						P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	100
Terre Alta High School	R, E	27	27	27	27				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	100
Thomas	R, E	27	27	27	27				P.	X	X	X	X	X	X	X	X	X	X	0	0	0	100
Weston	R, E	48	48	48	48				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	100
WISCONSIN																							
Appleton High School	R, E	42	42	42	42				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	300
Astoria	R, E	42	42	42	42				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	300
Athens	R, E	108	108	0	0				P. C.	X	X	X	X	X	X	X	X	X	X	10	12	12	125
Azure	R, E	108	108	0	0				P. C.	X	X	X	X	X	X	X	X	X	X	10	10	10	100
Beaver Dam	R, E	108	108	0	0				P. C. V.	X	X	X	X	X	X	X	X	X	X	100	0	0	100
Beloit	R, E	24	24	24	24				P.	X	X	X	X	X	X	X	X	X	X	50	30	30	600
Black River Falls	R, E	24	24	24	24				P.	X	X	X	X	X	X	X	X	X	X	5	0	0	100
Roseobel	R, E	20	20	20	20				P. C.	X	X	X	X	X	X	X	X	X	X	400	12	12	100
Cambridge	R, E	20	20	20	20				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	100
Chippewa Falls	R, E	20	20	20	20				P. C.	X	X	X	X	X	X	X	X	X	X	0	0	0	100

One trained in normal school, two in universities.

TABLE IV.—Drawing in public high schools—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in the art library.	Value of school art museum, reference materials, etc.	Art decorations in school-rooms?	Cost of such decorations.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.					
1	2		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Wisconsin—contd.																								
Clintonville	High School	R	114	114	0	0	0	0			P.	X	X	0	0	0	0	X	\$100	10		X	\$500	
Columbus	do.	E						0			V.	X	X	0	0	0	0	X	50	25		X	100	
Cambria	do.	E	72	36	36	36	0	0	\$675	A.	P. C.	0	X	0	0	0	0	X	30	12		X	50	
Darien	do.	R	60	60	60	60	0	0			P. C.	0	X	0	0	0	0	X	15	0		X	25	
Elkhorn	do.	E						0				0	X	0	0	0	0	X				X		
Friendship	do.	R						0				0	X	0	0	0	0	X				X		
Greensburg	do.	E						0				0	X	0	0	0	0	X				X		
Do.	East High School	R	54	54	0	0	0	0	1,050	A. N.	P. V.	0	X	0	0	0	0	X	300	21	\$75	X	350	
Do.	West High School	R						0				0	X	0	0	0	0	X	100	0	0	X	300	
Do.	High School	R						0				0	X	0	0	0	0	X				X		
Do.	do.	R						0				0	X	0	0	0	0	X				X		
Do.	do.	R	60	60	60	60	0	0	750	A.	P. C. V.	0	X	0	0	0	0	X	400			X	300	
Do.	do.	R						0				0	X	0	0	0	0	X				X	300	
Do.	do.	R	48	48	48	48	0	0				0	X	0	0	0	0	X	275			X	500	
Do.	do.	R	45	45	45	45	0	0				0	X	0	0	0	0	X				X	500	
Do.	do.	R	54	54				0				0	X	0	0	0	0	X				X	500	
Do.	do.	R	60	60	60			0	675	A.	P. C.	0	X	0	0	0	0	X	50			X	60	
Do.	do.	R	120	120	120	120	0	0	810	A.	P. C.	0	X	0	0	0	0	X	100	20		X	50	
Do.	do.	R	135	135				0	860	A.	P. C.	0	X	0	0	0	0	X	100	20		X	50	
Do.	do.	R	150	150	150	150	0	0	1,060	N.	P. C.	0	X	0	0	0	0	X	200	16		X	800	
Do.	do.	R	150	150	150	150	0	0	1,190	A. N.	C.	0	X	0	0	0	0	X	1,000			X	5,000	
Do.	do.	E						0				0	X	0	0	0	0	X				X	1,000	
Do.	do.	R, E	150	150	150	150	0	0	1,390	A. N.	P. C. V.	0	X	0	0	0	0	X	1,150	35	500	X	1,000	
Do.	do.	R, E	135	135				0				0	X	0	0	0	0	X	150			X	100	
Do.	do.	R, E	111	111				0				0	X	0	0	0	0	X	700	35		X	2,500	
Do.	do.	R, E	111	111				0	1,250	V.	P. C. V.	0	X	0	0	0	0	X				X		

Neilville	R	60	60	60	X	0	673	N	P. C.	X	X	X	X	X	X	X	X	X	100	15	100	X	600	
New Holstein	R	100	100	50	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	300	25	100	X	200	
Oconomowoc	R	36	45	45	0	0	0		P. C.	X	X	X	X	X	X	X	X	X	100		20	X	1,000	
Oconto	R	180	0	0	0	0	0		P.	X	X	X	X	X	X	X	X	X	250			X	100	
Oriskany	R	90	0	0	0	0	0																75	
La Crosse County School of Agriculture and Domestic Economy	R	370	270	0	0	0	0																150	
Palmlyn	R	40	60	60	60	0	0												15	6		X	200	
Rhinelander	R	108	108	72	72	0	0												40	3		X	300	
Richard Center	R	72	72	72	72	0	0												20	12		X	150	
Ripon	R	18	18	0	0	0	0												15	20		X	180	
St. Croix Falls	R	36	36	36	36	0	0															X	250	
South Milwaukee	R	72	72	72	72	0	0												250	8		X	1,000	
Spring Valley	R	18	18	0	0	0	0															X	100	
Stevens Point	R	36	36	36	36	0	0															X	300	
Stoughton	R	36	36	36	36	0	0															X	500	
Two Rivers	R	36	36	36	36	0	0															X	3,200	
Trojan	R	36	36	36	36	0	0															X	100	
Washburn	R	36	36	36	36	0	0															X	300	
Washington	R	36	36	36	36	0	0															X	100	
Wausau	R	36	36	36	36	0	0															X	100	
West De Pere	R	36	36	36	36	0	0															X	100	
West De Pere	R	36	36	36	36	0	0															X	1,200	
WYOMING																								
Sheridan	H							950	A. N.	X	X	X	X	X	X	X	X	X	56	60		X		
High School	H																							



TABLE V.—Drawing in private high schools and academies.

NOTE.—X indicates "Yes" and 0, in the same column, "No"; A, art school; N, normal; P, practical; C, cultural; V, vocational.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing and perspective courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in art library.	Value of school art museum, reference material, etc.	Art decorations in hall, etc.	Art decorations in schoolrooms?	Cost of such decorations.
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Tile craft.	Pottery craft.	Wood craft.	Local activities.						
1			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
ALABAMA.																									
	Noble Institute.....	E	72	72	72	106	X	0	A.	P.	0	X	X	0	0	0	0	0	0	0	0	0	0	0	0
	Central Alabama College (negro).....	R				72		0		P.															
	Huntsville.....	R						0		C.			X	0	0	0	0	0	0	0	0	0	0	0	0
	Mobile.....	R	36	36	36	36	X	0	A.	P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Do.....	R	18	16	24	20	X	0		P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Do.....	R	52	52	52	104	X	0		P. C. V.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tallapoosa College (negro).....	R						0		P. C. V.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA.																									
	Snowflake State Academy.....	E	81	81	81			0		C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
	Thatcher.....	E						0		P. C.	X	X	0	0	0	0	0	0	0	0	0	0	0	0	0
ARKANSAS.																									
	Arkadelphia Baptist Academy (negro).....	R	30	45	60	60	X	0		C.	0	0	X	0	0	0	0	0	0	0	0	0	0	0	0
	Crescent College and Conservatory.....	R	54	54	54	54	X	\$1,000		P. C. V.	0	0	X	0	0	0	0	0	0	0	0	0	0	0	0
	Fort Smith.....	R	56	54	54	54	X	0		P.	0	0	X	0	0	0	0	0	0	0	0	0	0	0	0
	Little Rock.....	R	36	24	0	0	X	0		P.	0	0	X	0	0	0	0	0	0	0	0	0	0	0	0
	Scotts Bluff College and Normal Institute (negro).....	R	64	64	64	64	X	0		C.	0	0	X	0	0	0	0	0	0	0	0	0	0	0	0

School Name	Address	Year	Enrollment	Value	Material	Faculty	Equipment	Other	Notes
Belmont School for Boys	Baltimore, Md.	E	360	258	360	0	0	0	1,800
Bethesda School for Girls	Baltimore, Md.	R, E	108	108	108	0	0	0	250
Head's (Miss) School	Do.	E	0	218	216	0	0	0	270
St. Matthew's School	Do.	E	36	36	36	0	0	0	600
Burlingame	Do.	E	360	360	350	0	0	0	900
Lordsburg College	Los Angeles, Cal.	E	140	140	140	0	0	0	900
Harvard College	Do.	E	400	400	400	0	0	0	900
Westlake School for Girls	Do.	E	120	120	120	0	0	0	405
Montezuma Mountain Ranch School	Do.	R, E	108	108	120	0	0	0	675
Castilla School	Do.	R, E	36	36	36	0	0	0	540
Harker's (Miss) School for Girls	Do.	E	36	36	36	0	0	0	100
Marquette Hall	Do.	R	40	40	40	0	0	0	100
Orion School	Do.	R	100	100	100	0	0	0	100
College of Notre Dame	Do.	R	120	120	120	0	0	0	150
Elizabeth Marjorie School	Do.	R	27	27	27	0	0	0	500
St. Agnes Presentation Academy	Do.	R	40	40	40	0	0	0	150
Do.	Do.	R	160	160	160	0	0	0	200
St. Vincent's School	Do.	R	120	120	120	0	0	0	200
San Francisco University School for Boys	Do.	R	0	0	0	0	0	0	75
Trinity School	Do.	R, E	135	135	135	0	0	0	75
Elizabethton Military Academy	Do.	R	107	107	107	0	0	0	20
St. Thomas Military Academy	Do.	R	0	0	0	0	0	0	0
Henry School	Do.	R	54	54	54	0	0	0	0
High School	Do.	R	36	36	36	0	0	0	0
Macdonald Notre Dame Academy	Do.	R	80	80	80	0	0	0	0
Loretto Heights Academy	Do.	R	80	80	80	0	0	0	0
Hartford School	Do.	R	50	50	50	0	0	0	100
Branford School	Do.	R	54	54	54	0	0	0	100
Ely School for Girls	Do.	R	54	54	54	0	0	0	100
Greenwich Academy	Do.	R	36	36	36	0	0	0	40
Rosemary Hall	Do.	R	36	36	36	0	0	0	40
Oxford School	Do.	R	36	36	36	0	0	0	40
Academy of Our Lady of Mercy	Do.	R	36	36	36	0	0	0	40
Miss Johnson's School	Do.	R	54	54	54	0	0	0	40
Williams Memorial Institute	Do.	R	27	27	27	0	0	0	40
Harrison School	Do.	R	54	54	54	0	0	0	40
Hillside School	Do.	R	27	27	27	0	0	0	40
Norwich Free Academy	Do.	R	54	54	54	0	0	0	40
Sethred School	Do.	R	144	144	144	0	0	0	100
Law (Miss) and Heywood's (Miss) School for Girls	Do.	R	72	72	72	0	0	0	100

TABLE V.—Drawing in private high schools and academies—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.														
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.																			
<b>CONNECTICUT—CON.</b>																																						
Stamford.	Manor School.	E									X																											
Soufield.	Connecticut Literary Institution.	E				102				V. P.																												
Wallingford.	Choate School for Boys.	E					X		A.	P. C.	X																											
Do.	Frisbie School for Girls.	E					X	\$600	A.	P. C. V.	X																											
Do.	Gummary School.	E				22	54		A.	P. C. V.	X																											
Do.	Stages School for Boys.	E				38			A.	P. C. V.	X																											
Do.	Campbell School for Girls.	E					X		A.	P. C. V.	X																											
Do.	Gilbert School.	E				24	24	24		P. V.	X																							\$1,500				
<b>DELAWARE.</b>																																						
Dover.	Wilmington Conference Academy.	R				120			A.	P. C. V.																												
<b>DIST. COLUMBIA.</b>																																						
Washington.	Cherry Chase Seminary.	E					X	400	A. N.	P. C.																												
Do.	Holton-Arms School.	E					X	250	A.	P. C.																												
Do.	Madelira's (Miss) School for Girls.	E				48	48		A.	P. C.																												
Do.	Washington Foreign Mission Seminary.	R					X		A.	C.																												
Do.	Washington Seminary.	E					X																															
<b>FLORIDA.</b>																																						
Jacksonville.	Cookman Institute (negro).	R							A. N.	P. C. V.																												
Do.	Florida Military Academy.	E					0			P.																												
Key West.	Convent of Mary Immaculate.	E				80	80	80		P. C. V.																												





TABLE V.—Drawing in private high schools and academies—Continued.

Table with columns: Location, Name of high school, Required or elective?, Hours per year devoted to drawing, Salary of high-school drawing teacher, His training, Work practical, cul-tural or vocational?, Mechanical and free-hand drawing sep-arate courses?, School work, Drawing applied to (Metal craft, Leather craft, Textile craft, Pottery craft, Wood craft, Locomotive craft), Approximate cost of drawing equipment, Volumes in art library, Value of school art museum, reference material, etc., Art decorations in school rooms?, Cost of such decorations.

State	School Name	Grades	Teachers	Students	Equipment	Materials	Books	Other	Notes	
KANSAS	Southern Kansas Academy	E	135	135	0	0	0	0	P.	
	St. Mary's Academy	E	216	216	X	X	X	X	P.C.	
	Newton	E	72	72	X	X	X	X	A.	
	Bethel College	R	72	72	X	X	X	X	A.	
	Oswego College	R	72	72	X	X	X	X	P.C.V.	
KENTUCKY	Corvinton	E	80	40	X	X	X	X	P.	
	Lebanon	E	72	72	X	X	X	X	P.	
	London	R	72	72	X	X	X	X	C.	
	McKee Academy	R	72	72	X	X	X	X	P.C.	
	Academy of Notre Dame of Providence	R	24	24	X	X	X	X	P.C.	
	St. Francis Academy (School)	R	90	90	X	X	X	X	P.C.	
	Paris Academy	E	90	90	X	X	X	X	C.	
	Villa Ridge School	E	90	90	X	X	X	X	F.	
	Pileville College	E	90	90	X	X	X	X	F.	
	LOUISIANA	St. James Church School	R	36	36	X	X	X	X	P.C.
St. Scholastica's Academy		R	20	40	X	X	X	X	P.C.V.	
St. John's Academy		E	90	180	X	X	X	X	P.C.	
Sacred Heart Academy		E	108	108	X	X	X	X	P.	
Academy of the Sacred Heart		E	144	144	X	X	X	X	P.	
Home Institute		R	90	90	X	X	X	X	P.C.V.	
Jesuit High School		R	40	40	X	X	X	X	P.C.V.	
Luther College (negro)		R	40	40	X	X	X	X	P.C.V.	
Finac Institute		R	40	40	X	X	X	X	P.C.V.	
Ursuline College and Academy		R	40	40	X	X	X	X	P.C.V.	
MAINE		Abbott School	E	108	108	X	X	X	X	P.C.V.
		Fryebury Academy	E	108	108	X	X	X	X	P.V.
		Maine Wesleyan Seminary	E	54	54	X	X	X	X	P.V.
		Amington Academy	E	54	54	X	X	X	X	P.C.V.
		Amherst Academy	R	36	36	X	X	X	X	P.C.V.
	St. Ann's Academy	R	36	36	X	X	X	X	P.C.V.	
	Mount Marcell Academy	R	24	10	X	X	X	X	V.	
	Wilton Academy	R	24	10	X	X	X	X	V.	
	MARTLAND	Byrn Mavr School	R	36	36	X	X	X	X	P.V.
		Calvert Hall College	R	72	108	X	X	X	X	P.
Delchmann College		R	108	108	X	X	X	X	P.	
Preparatory School		E	108	108	X	X	X	X	P.	

TABLE V.—Drawing in private high schools and academies—Continued.

Location.	Name of high school.	#	Required of electives	Hours per year devoted to drawing.				Special teacher employed	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, optional, or vocational?	Mechanical and free-hand drawing apps.	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in art library.	Value of school art museum, reference material, etc.	Art decorations in school rooms?	Cost of such decorations.														
				First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.																			
MARYLAND—CONT.	Baltimore.																																						
	Baltimore.	Friends' School.	R	108	108	77	72	X	\$200	A.	P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
	Dorchester.	Glenn Lister School.	R	36	36	36	36	X			A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
	Catonsville.	Mount De Sales Academy of the Visitation.	E	90	90	180	180	X			A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	Coleton.	West Nottingham Academy.	R	30	30	30	30	X	350		A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	La Plata.	McDonough School.	R	60	108	108	108	X			N.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	McDonogh.	McDonough School.	R	36	36	36	36	X			N.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	Mount Washington.	Mount St. Agnes College.	E	36	36	36	36	X		850	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	Port Deposit.	Texas Institute.	R, E	48	48	48	48	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	Rolland Park.	Rolland Park Country School.	R	36	36	36	36	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	MASSACHUSETTS.	Andover.	Phillips Academy.	E	0	0	0	0	0	600	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,000		
		Ashburnham.	Cushing Academy.	R	47	47	47	47	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
		Boston.	Boston Academy of Notre Dame.	R	40	20	20	0	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
		Do. #	Church's (Miss) School.	R, E	27	27	54	54	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	250	
		Do.	Cunningham's (Miss) School.	R	0	27	27	27	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Do.		Curran's (Miss) School.	E	27	27	27	27	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Do.		Hasbain's (Miss) School.	E	27	27	27	27	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Do.		Mays' (Misses) School.	R	27	27	27	27	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Do.		Western School for Girls.	R	30	30	30	30	X			A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Do.		Wilder School.	R	20	20	20	20	X		650	A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Do.		Windsor School.	R	20	20	20	20	X			A.	P. C. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Revere.		Sea Pines Home School for Girls.	R	36	36	0	0	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Concord.		Madeline School.	R	36	36	0	0	X			A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Duxbury.		Partridge Academy and Duxbury High School.	R	27	27	27	27	X		450	A.	P. C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Easthampton.		Wilston Seminary.	R	108	108	144	144	X		1,200	N.	P. V.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	200.	1,800.	

Table with multiple columns: School Name, City, State, Enrollment, etc. Schools listed include Northfield Seminary, East Northfield, Full River, and others across various states like Massachusetts, Michigan, and Missouri.



TABLE V.—Drawing in private high schools and academies—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is no supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in art library.	Value of school art material, etc.	Art decorations in school rooms?	Cost of such decorations.									
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leather craft.	Textile craft.	Pottery craft.	Wood craft.	Local activities.														
MISSOURI—Contd.																																	
	Meridian Academy (negro).....	R	18	18	18	18	0	\$540		P. C.	X			X	X	X									X			\$25					
	Jefferson Military College.....	E					0			P. C.															X								
	Southern Christian College.....	E					0			P. C.	X																						
MISSOURI																																	
	Kemper Military School.....	R	96	150	150	150	0	\$65	A.	P. C.																							
	Clandon Point.....	R	25	25	25	25	0			P. C.	X																						
	St. Joseph's Academy.....	R	40	0	0	0	0			P. C.	X																						
	St. Paul's College.....	R	18	18	18	18	0			P. C.	X																						
	St. Paul Academy.....	R	40	0	0	0	0			P. C.	X																						
	Kansas City.....	R	40	0	0	0	0			P. C.	X																						
	Marion.....	R	190	180	180	180	0			P. C.	X																						
	Marble Hill.....	E	190	180	180	180	0			P. C.	X																						
	Merion.....	E	36	36	36	36	0			P. C.	X																						
	Missouri Military Academy.....	R	36	36	36	36	0	200	A.	P. C.	X																						
	Bishop Robertson Hall.....	R	54	54	54	54	0		A.	P. C.	X																						
	St. Louis.....	R	54	54	54	54	0			P. C.	X																						
	St. Do.....	R	54	54	54	54	0			P. C.	X																						
MONTANA																																	
	Sacred Heart Academy.....	E	36	54	54	54	X		N.	P. C.																X							
MISSOURI																																	
	Dana College.....	R					X		A.	P. C.																X							
	St. Francis Academy.....	R					X		A.	P. C.																X							
	Franklin Academy.....	E					X		A.	P. C.																X							
	Brownell Hall.....	E	54	54	54	54	0		A.	P. C.																X							



TABLE V.—Drawing in private high schools and academies—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed?	Is the supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—						Approximate cost of drawing equipment.	Volumes in art library.	Value of school art material, etc.	Art decorations in school rooms?	Cost of such decorations.								
			First year.	Second year.	Third year.	Fourth year.							School work.	Metalcraft.	Leathercraft.	Textile craft.	Pottery craft.	Wood craft.						Local activities.							
<b>NEW YORK—cont'd.</b>																															
Binghamton	St. Patrick's Academy	R	80	80	120	80	X	0	A.	P. C.	X	X	X	X	X	0	0	0	0	0	0	0	0	25	100	0	0	0	\$75		
Brooklyn	Dow's (Mrs.) School	R	120	120	240	240	X	900	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	75	50	0	0	0	0		
Brooklyn	Berkely Institute	E	45	45	45	45	X	800	P. C.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Do.	Brooklyn Heights Seminary	R, E	45	45	45	45	X	1,000	P. C.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Do.	Friends School	R	45	45	45	45	X	1,500	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Do.	Packer Collegiate Institute	E	54	54	54	54	X	300	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Do.	Prospect Heights School	R	54	54	54	54	X	300	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Do.	Round's (Miss) School for Girls	R, E	54	54	54	54	X	300	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Do.	St. Francis Xavier's Academy	R	54	54	54	54	X	300	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Buffalo	Mount Mercy Academy	R	54	54	54	54	X	300	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Do.	Nichols School	R	81	81	81	81	X	400	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Do.	St. Margaret's School	R	54	54	54	0	X	300	A.	C. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Carmel	Drew Seminary for Young Women	E	54	54	54	0	X	300	A.	C. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Catskill	Cazenovia Seminary	E	81	81	108	108	X	900	A.	P. V.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
College Point	Poppenshausen Institute	E	190	180	180	180	X	900	N.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Do.	St. Agnes Academy	E	81	108	108	108	X	900	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cornwall-on-the-Hudson	New York Military Academy	E	30	30	35	35	X	1,000	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Croghan	Father Leo Memorial School	R	135	144	144	108	X	1,000	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Do.	The Misses Masters' School	R	144	144	144	108	X	1,000	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Do.	St. Mary's Academy	R	144	144	144	108	X	1,000	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Dobbs Ferry	St. Ann's Academy	R	144	144	144	108	X	1,000	A.	P. C.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Do.	Kate Richards	R	36	36	36	36	X	500	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Do.	Hartwick Seminary	R	68	68	68	68	X	500	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hartwick Seminary	Hartwick Seminary	R, E	144	108	72	36	X	1,000	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Houghton	Wesleyan Methodist Seminary	R	144	108	72	36	X	1,000	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hudson	St. Mary's Academy	R, E	144	108	72	36	X	1,000	P.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keeseville	St. Stanislaus Academic School	R, E	54	54	54	54	X	300	A.	P.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

School Name	City	Recess	Drum	Training	Class	Prep	Library	Map	Other	Art	Music	Physical	Science	Math	English	History	Latin	Foreign	Other	Total	Remarks
Labanont																					
Palmer Institute-Starkey Seminary	St. Mary	E	R	E	108	108	108	108	108	0	0	0	0	0	0	0	0	0	0	635	
Cemese Wesleyan Seminary	St. Mary	E	R	E	108	108	108	108	108	0	0	0	0	0	0	0	0	0	0	600	
Friends Academy	Little Falls	E	R	E	108	108	108	108	108	0	0	0	0	0	0	0	0	0	0	230	
Friends Academy	Little Falls	E	R	E	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	745	
Friends Academy	Little Falls	E	R	E	150	150	150	150	150	0	0	0	0	0	0	0	0	0	0	1,000	
St. John's School	Manlius	E	R	E	72	72	72	72	72	0	0	0	0	0	0	0	0	0	0	800	
Ursuline Academy	Manlius	E	R	E	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	750	
Bennett School for Girls	Millbrook	E	R	E	72	72	72	72	72	0	0	0	0	0	0	0	0	0	0	800	
Cook Academy	Montour Falls	E	R	E	36	36	36	36	36	0	0	0	0	0	0	0	0	0	0	750	
St. Clare's Academy	Montour Falls	E	R	E	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	750	
Botolph School	Mount Hope	E	R	E	28	28	28	28	28	0	0	0	0	0	0	0	0	0	0	1,000	
Ursuline Seminary	New Brighton	E	R	E	57	57	57	57	57	0	0	0	0	0	0	0	0	0	0	1,000	
Academy of Mount St. Ursula	New Rochelle	E	R	E	36	36	36	36	36	0	0	0	0	0	0	0	0	0	0	1,000	
Academy of Mount St. Vincent	New Rochelle	E	R	E	48	48	48	48	48	0	0	0	0	0	0	0	0	0	0	1,000	
Alcun Preparatory School	Do.	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	350	
Alcun Preparatory School	Do.	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	350	
Bacon (Miss) and Whittons (Miss) School for Girls	Do.	E	R	E	70	70	70	70	70	0	0	0	0	0	0	0	0	0	0	1,000	
Barnard School for Girls	Do.	E	R	E	80	80	80	80	80	0	0	0	0	0	0	0	0	0	0	1,000	
Berkley School	Do.	E	R	E	60	60	60	60	60	0	0	0	0	0	0	0	0	0	0	350	
Blessed Sacrament Academy	Do.	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	200	
Breadley School	Do.	E	R	E	30	30	30	30	30	0	0	0	0	0	0	0	0	0	0	1,000	
Brown School of Tutoring	Do.	E	R	E	42	42	42	42	42	0	0	0	0	0	0	0	0	0	0	400	
Browning School	Do.	E	R	E	33	33	33	33	33	0	0	0	0	0	0	0	0	0	0	1,000	
Cathedral School	Do.	E	R	E	33	33	33	33	33	0	0	0	0	0	0	0	0	0	0	400	
Charlton School	Do.	E	R	E	90	90	90	90	90	0	0	0	0	0	0	0	0	0	0	1,000	
Cherubino School	Do.	E	R	E	20	20	20	20	20	0	0	0	0	0	0	0	0	0	0	150	
Collins Grammar School	Do.	E	R	E	81	81	81	81	81	0	0	0	0	0	0	0	0	0	0	3,000	
Conestoga School	Do.	E	R	E	96	96	96	96	96	0	0	0	0	0	0	0	0	0	0	900	
Ethical Culture High School	Do.	E	R	E	30	30	30	30	30	0	0	0	0	0	0	0	0	0	0	100	
Friends Seminary	Do.	E	R	E	45	45	45	45	45	0	0	0	0	0	0	0	0	0	0	600	
Gardner School	Do.	E	R	E	45	45	45	45	45	0	0	0	0	0	0	0	0	0	0	600	
Graham School	Do.	E	R	E	45	45	45	45	45	0	0	0	0	0	0	0	0	0	0	600	
Irving School	Do.	E	R	E	45	45	45	45	45	0	0	0	0	0	0	0	0	0	0	600	
Kohut School for Boys	Do.	E	R	E	40	40	40	40	40	0	0	0	0	0	0	0	0	0	0	100	
Le Salle Academy	Do.	E	R	E	27	27	27	27	27	0	0	0	0	0	0	0	0	0	0	100	
Loyola School	Do.	E	R	E	90	90	90	90	90	0	0	0	0	0	0	0	0	0	0	250	
St. Ann's Academy	Do.	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	100	
Spence's (Miss) School for Girls	Do.	E	R	E	36	36	36	36	36	0	0	0	0	0	0	0	0	0	0	100	
Unity School	Do.	E	R	E	72	72	72	72	72	0	0	0	0	0	0	0	0	0	0	100	
De Paul Academy	New Rochelle	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	1,000	
A. M. Chaston Seminary	Oostburg	E	R	E	72	72	72	72	72	0	0	0	0	0	0	0	0	0	0	1,000	
Holbrook School	Oostburg	E	R	E	72	72	72	72	72	0	0	0	0	0	0	0	0	0	0	1,000	
Worrall Hall Military Academy	Peekskill	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	250	
Yonville Academy	Port Henry	E	R	E	54	54	54	54	54	0	0	0	0	0	0	0	0	0	0	250	
Champlain Academy	Port Henry	E	R	E	20	20	20	20	20	0	0	0	0	0	0	0	0	0	0	50	



TABLE V.—Drawing in private high schools and academies—Continued.

Location.	Name of high school.	Required or elective?	Hours per year devoted to drawing.				Special teacher employed	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher.	His training.	Work practical, cultural, or vocational.	Mechanical and free-hand drawing separate courses?	Drawing applied to—							Approximate cost of drawing equipment.	Volumes in art library.	Value of school art material, reference material, etc.	Art decorations in school room?	Cost of such decorations.														
			First year.	Second year.	Third year.	Fourth year.							School work.	Metal craft.	Leathercraft.	Textile craft.	Pottery craft.	Wood craft.	Local activity.																			
<b>NEW YORK—contd.</b>																																						
Poughkeepsie.	Glen Eden Seminary	E	180	180	190	180	X	\$240	A.	C.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							
Readford.	Sallia Academy	R	96	96	96	96	X		N.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Rochester.	Nazareth Academy	R	100	100	100	100	X	400	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X						
Rouses Point.	St. Patrick's Academic School	R	81	81	81	81	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Scarsdale.	Lockwood Collegiate School	R	84	84	84	84	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Sharonbury.	St. John's Catholic School	R	72	72	72	72	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Syracuse.	Sacred Heart School	R	72	72	72	72	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Tarrytown.	Irving School	R	180	141	141	141	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Troy.	"Marymount"	R	30	30	30	30	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Utica.	Emmaus W. School	R	80	80	80	80	X	800	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
White Plains.	St. Augustine's Academy	R	54	54	54	54	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	Westchester Academy	R	54	54	54	54	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
<b>NORTH CAROLINA.</b>																																						
Asheville.	Asheville School	R	135	135	0	135	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Do.	St. Genevieve's Academy	R	70	70	70	70	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Creant.	Trappist Academy	R	86	86	86	86	X	225	A.	P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Lumberton.	Thomas Institute	R	190	190	54	72	X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Pee Dee.	Forest College (and Industrial Institute)	R	12	12			X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Pinehurst.	Pinehurst Preparatory School	E					X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Troy.	Peebody Academy (negro)	R					X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Wilmington.	Gregory Institute	R	27	27			X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<b>NORTH DAKOTA.</b>																																						
Fargo.	Oak Grove Lutheran Ladies Seminary	R	81				X			P.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

School Name	Address	City	State	Year	Boys	Girls	Total	Value	Material	Other	Total Value	Notes
St. Bernard's Academy			R	E								
Collegiate Institute												
Grand Forks												
New Rockford												
OHIO.												
Barnesville												
Blythen												
Channah												
Do												
Do												
Do												
Copleville												
Cleveland												
Do												
Do												
Do												
Columbus												
Dartmouth												
Gambler												
Toledo												
Do												
OREGON.												
Mount Angel												
College and Seminary												
Portland												
Do												
FERNSTAMPA.												
Beatty												
Beckham												
Carlisle												
Crosson												
Elisabethtown												
Erie												
Factoryville												
Georgetown												
Haverford												
Lebanon												
Lansaster												
Do												
Media												
Friends' Select School												
Mercersburg												
Mercersburg Academy												
Merion Station												
Mater Misericordiae Academy												

TABLE 7.—Drawing in private high schools and academies—Continued.

Location	Name of high school	Required or elective?	Hours per year devoted to drawing				Special teacher employed?	Is he supervisor of drawing in the grades?	Salary of high-school drawing teacher	His training	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—								Approximate cost of drawing equipment	Volumes in art library	Value of school art material, etc.	Art decorations in hall, etc.	Cost of such decorations				
			First year	Second year	Third year	Fourth year							School work	Metal craft	Leather craft	Textile craft	Pottery craft	Wood craft	Local activities										
1			8	4	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Maryland	Nassau Hall Military Academy	R	80	0																									
Massachusetts	Brown College Preparatory School	E	81	81	81	81	81	0																					
Massachusetts	De Lanoy School	E	54	54	54	54	54	X																					
Massachusetts	Friends' Central School	E	54	54	54	54	54	X																					
Massachusetts	Friends' Select School	E	54	54	54	54	54	X																					
Massachusetts	Germantown Friends' School	E	54	54	54	54	54	X																					
Massachusetts	Griffin School	E	54	54	54	54	54	X																					
Massachusetts	Hill's (Miss) School for Girls	E	54	54	54	54	54	X																					
Massachusetts	Lebanon School for Girls	E	54	54	54	54	54	X																					
Massachusetts	Lebanon School for Girls	E	54	54	54	54	54	X																					
Massachusetts	Phillips Brooks School	E	54	54	54	54	54	X																					
Massachusetts	Phillips Brooks School	E	54	54	54	54	54	X																					
Massachusetts	Roman Catholic High School for Boys	E	72	180	190	190	190	X																					
Massachusetts	Sayward's (Miss) School	E	54	54	54	54	54	X																					
Massachusetts	Albany Preparatory School	E	72	72	72	106	106	X																					
Massachusetts	East Liberty Academy	E	135	135	135	135	135	X																					
Massachusetts	Pittsburg Academy	E	135	135	135	135	135	X																					
Massachusetts	Shady Side Academy	E	0	190	190	190	190	X																					
Massachusetts	Thurston (George H.) School	E	0	190	190	190	190	X																					
Massachusetts	Hill School	E	18	18	18	18	72	0																					
Massachusetts	Holy Rosary Academy	E	54	54	54	54	54	X																					
Massachusetts	Academy of the Holy Child Jesus	E	54	54	54	54	54	X																					
Massachusetts	Blabothorpe Manor	E	85	85	85	85	85	X																					
Massachusetts	Washington Seminary	E	150	150	150	150	150	X																					





DRAWING AND ART IN SCHOOLS.

TABLE V.—Drawing in private high schools and academies—Continued.

Location	Name of high school	Required or elective?	Hours per year devoted to drawing				Special teacher employed?	Is he supervisor of drawing in the grade?	Salary of high-school drawing teacher	His training	Work practical, cultural, or vocational?	Mechanical and free-hand drawing separate courses?	Drawing applied to—						Approximate cost of drawing equipment	Volumes in art library	Value of school art material, reference material, etc.	Art decorations in school rooms?	Cost of such decorations															
			First year	Second year	Third year	Fourth year							School work	Metal craft	Leather craft	Textile craft	Pottery craft	Wood craft						Local activities														
UTAH																																						
			135	0	0	108	X	0		P.																												
Coatville	Saratoga State Academy	E	180				X	0	N.	P. C. V.	X	X	X	X	X						25			X														
Copiah	Higham Young College	R, E	135						N.	P. C. V.	X	X	X	X	X					60																		
	Wagar Academy	R, E					X	0												300																		
POUNCEVILLE																																						
Pauline	Troy Conference Academy	R	80	36	36	36	X		A.	P. C. V.	X	X	X	X	X					300	25																	
St. Johnsbury	Mount St. Joseph's Academy	R	26																																			
Suttons River	Vermont Academy	R, E																		200	55																	
VERMONT																																						
Charlotteville	St. Anne's Episcopal School	E																		200	12																	
Chase City	Southside Female Institute	E							A.	C.										100																		
Chatham	Chatham Episcopal Institute	E	37	37	37	37	X	X	A.	C.	X	X	X	X	X					300	75	3200			X													
Gloucester	Gloucester Academy	E	72	72	72	72	X	X	A. N.	P. C. V.	X	X	X	X	X					500																		
Harrison	Harrison Seminary	E																																				
Friendale	Northern Neck Industrial Academy (Negro)	R																																				
Iver	Cornish Academy	E	54	54	54	54	X																															
Low Market	Shawmut Academy	E																																				
Low Market	Oak Point Academy	E	45	45	45	45	X		A.											50					X													
Madison	St. Joseph's Academy	R	72	72	72	36	X		A. N.	P. C. V.	X	X	X	X	X										X													
Shanley	Stuart Hall	R	26																																			
Woodberry Forest	Woodberry Forest School	R	204																																			
Woodstock	Masanutten Academy	R	54	54	54	54	X		N.	P.	X	X	X	X	X					500	25																	
Wylarville	Berwick School for Girls	R	54	54	54	54	X		A.	P.	X	X	X	X	X					100	20																	

DRAWING IN PRIVATE SCHOOLS.

State	School Name	Grades	Teachers	Students	Method	Books	Materials	Other	Notes
WASHINGTON.	Providence Academy	72 72 72	R	0	0	0	0	0	0
	Academy of Our Lady of Lourdes	54 54 54	R	0	0	0	0	0	0
	Do	36 36 36	E	0	0	0	0	0	0
	Do	72 36 36	E	0	0	0	0	0	0
	Do	36 36 54	E	0	0	0	0	0	0
WEST VIRGINIA.	Stephenson Seminary		E, E	0	0	0	0	0	0
	Broadbent Institute		E, E	0	0	0	0	0	0
	Balsam College		E, E	0	0	0	0	0	0
	St. John's Military Academy		R	0	0	0	0	0	0
WEST VIRGINIA.	St. John's Military Academy		R	0	0	0	0	0	0
	Zanesville Seminary		R	0	0	0	0	0	0
	Evansville Seminary		R	0	0	0	0	0	0
	Gratton Hall		R	0	0	0	0	0	0
	Do		R	0	0	0	0	0	0
	St. Mary's Springs Academy		E	0	0	0	0	0	0
	St. Joseph's Academy		E	0	0	0	0	0	0
	Hillside Home School		E	0	0	0	0	0	0
	Geisbush School		E	0	0	0	0	0	0
	Kemper Hall School		E	0	0	0	0	0	0
	Millman High School		E	0	0	0	0	0	0
	Do		E	0	0	0	0	0	0
	St. John's Cathedral High School		R	0	0	0	0	0	0
	Do		R	0	0	0	0	0	0
	St. Mary's Academy		E	0	0	0	0	0	0
	College of the Sacred Heart		R	0	0	0	0	0	0
	Do		R	0	0	0	0	0	0
Leather College		E	0	0	0	0	0	0	
St. Clara Academy		E	0	0	0	0	0	0	
WYOMING.	Academy of the Holy Child Jesus		R	0	0	0	0	0	0
	Chapman		R	0	0	0	0	0	0

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- †No. 3. The auxiliary schools of Germany. Six lectures by B. Muennel.
- †No. 4. The elimination of pupils from school. Edward L. Thorndike.

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- \*No. 2. List of publications of the United States Bureau of Education, 1867-1907. 10 cts.
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- \*No. 5. Education in Formosa. Julian H. Arnold. 10 cts.
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- \*No. 8. A teacher's professional library. Classified list of 100 titles. 5 cts.
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- No. 10. Education for efficiency in railroad service. J. Shirley Easton.
- \*No. 11. Statistics of State universities and other institutions of higher education partially supported by the State. 1908-9. 5 cts.

### 1910.

- No. 1. The movement for reform in the teaching of religion in the public schools of Saxony. Arley B. Shaw.
- No. 2. State school systems: III. Legislation and judicial decisions relating to public education, Oct. 1, 1908, to Oct. 1, 1909. Edward C. Elliott.
- †No. 3. List of publications of the United States Bureau of Education, 1867-1910.
- \*No. 4. The biological stations of Europe. Charles A. Kofoid. 50 cts.
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- †No. 26. Bibliography of child study for the years 1910-1911.
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- \*No. 28. Cultivating school grounds in Wake County, N. C. Zebulon Judd. 5 cts.
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- No. 30. Latin-American universities and special schools. Edgar E. Brandon.
- No. 31. Educational directory, 1912.
- No. 32. Bibliography of exceptional children and their education. Arthur MacDonald.
- †No. 33. Statistics of State universities and other institutions of higher education partially supported by the State. 1912.

1913.

- No. 1. Monthly record of current educational publications, January, 1913.
- \*No. 2. Training courses for rural teachers. A. C. Monahan and R. H. Wright. 5 cts.
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- \*No. 40. The reorganized school playground. Henry S. Curtis. 10 cts.
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- No. 55. Legislation and judicial decisions relating to education, October 1, 1909, to October 1, 1912. James C. Boykin and William R. Hood.
- No. 56. Some suggestive features of the Swiss school system. William Knox Tate.
- No. 57. Elementary education in England, with special reference to London, Liverpool, and Manchester. I. L. Kandel.
- No. 58. Educational system of rural Denmark. Harold W. Foight.
- No. 59. Bibliography of education for 1910-11.
- No. 60. Statistics of State universities and other institutions of higher education partially supported by the State, 1912-13.

1914.

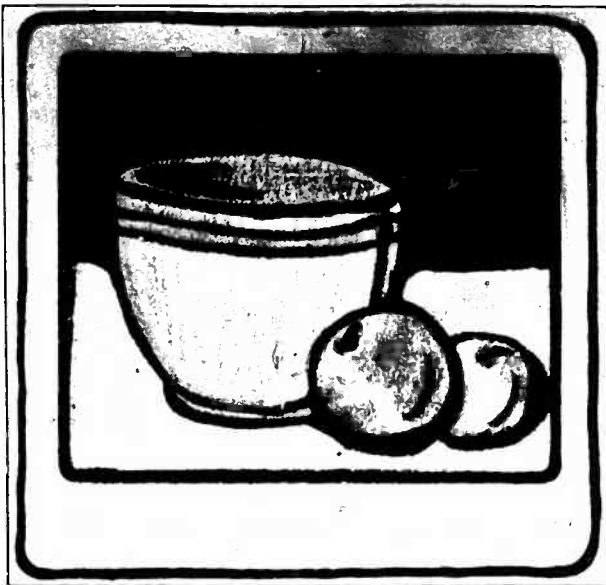
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- No. 10. Physical growth and school progress. B. T. Baldwin.
- No. 11. Monthly record of current educational publications, May, 1914.
- No. 12. Rural schoolhouses and grounds. F. B. Dresslar.

BUREAU OF EDUCATION

BULLETIN, 1914, No. 13 PLATE 1



SKETCHING FROM LIFE MODEL, WASHINGTON IRVING HIGH SCHOOL, NEW YORK CITY.



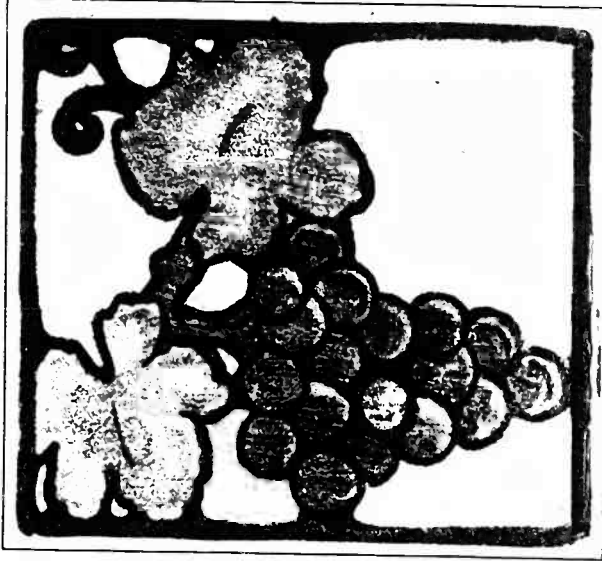
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B. LANDSCAPE—NATURE—COMPOSITION, EIGHTH GRADE, LOS ANGELES.



BULLETIN, 1914, NO. 13 PLATE 4

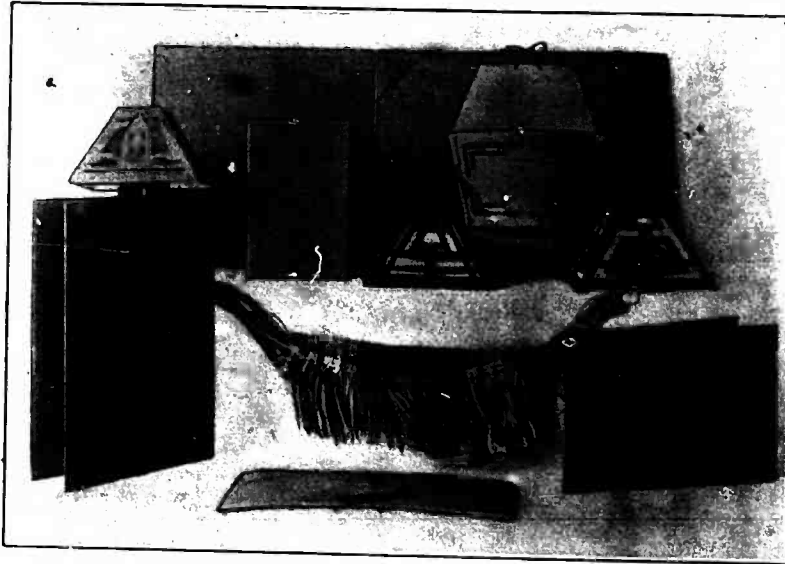


B. NATURE COMPOSITION, FIGHTER CASADE, LOS ANGELES

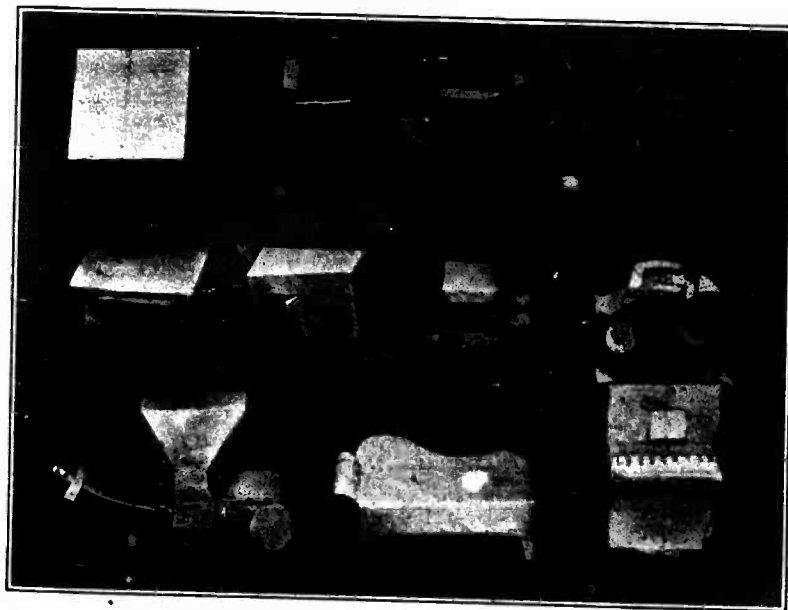
BUREAU OF EDUCATION



A. NATURE DRAWING, LOS ANGELES

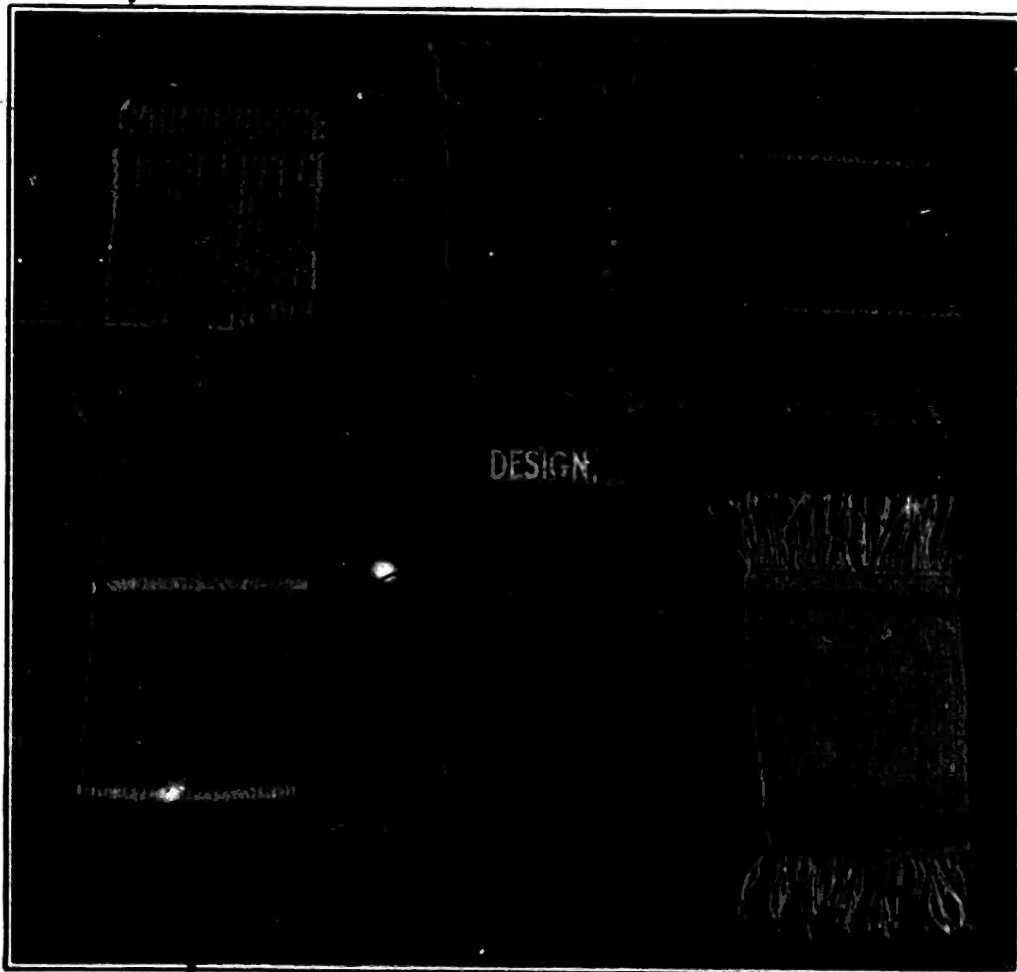
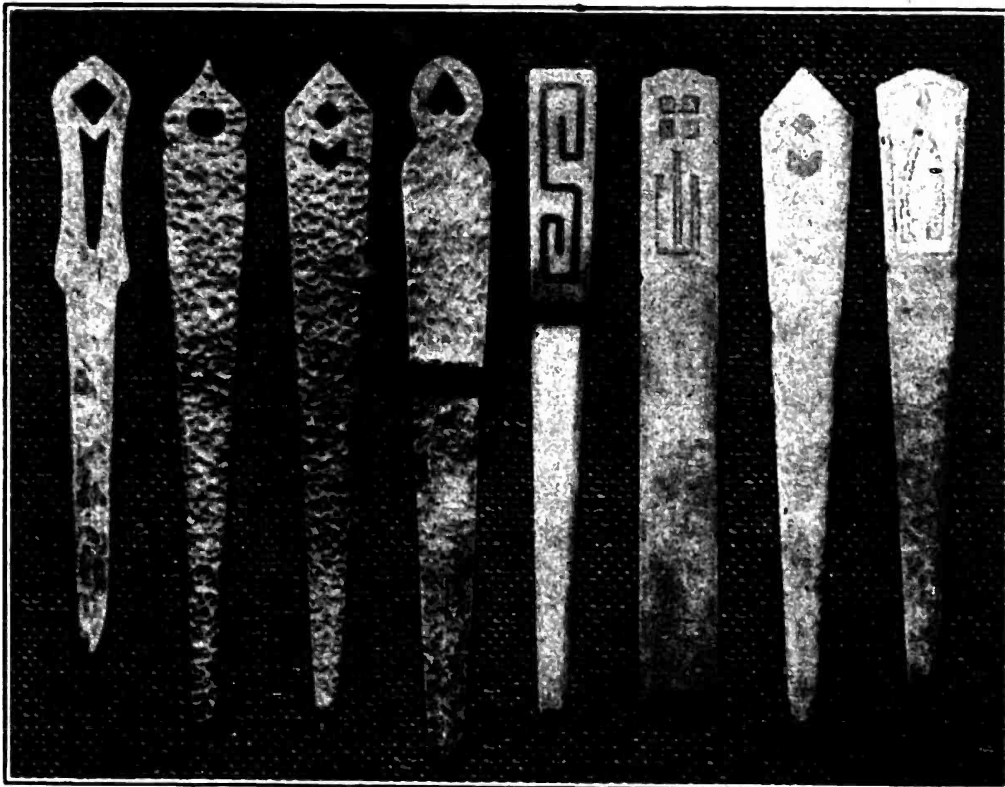


A. CONSTRUCTION WORK, THIRD TO SIXTH GRADE, MINNEAPOLIS.

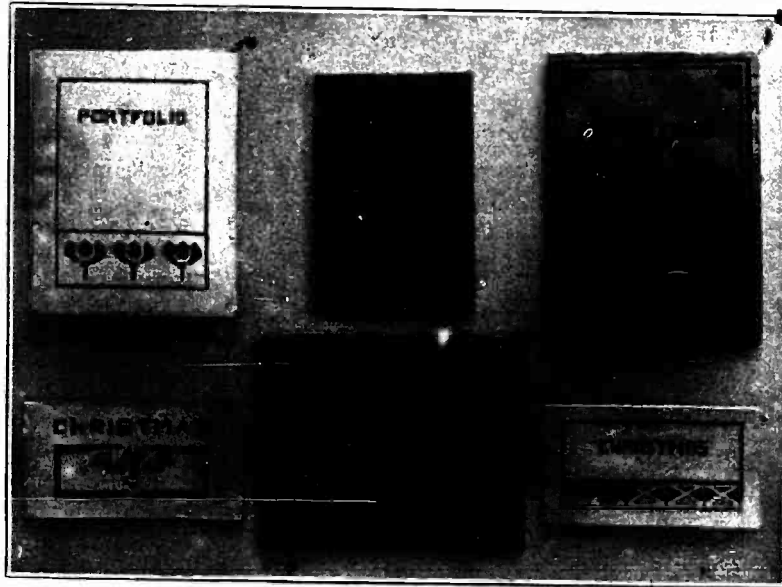


B. BOGUS CONSTRUCTION, ST. LOUIS PUBLIC SCHOOLS  
First year, age 7: 50 in class, 2 periods on problem.



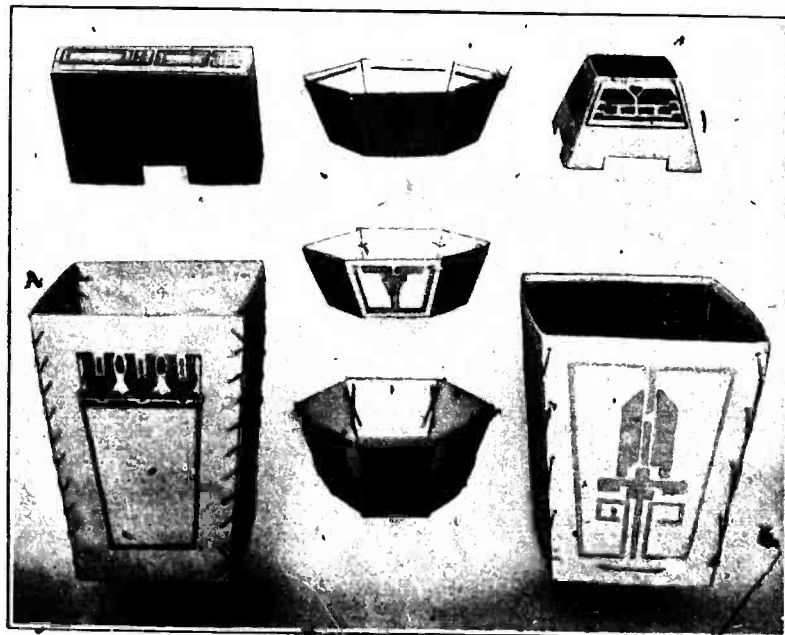


GRADE WORK IN DESIGN, BOSTON.



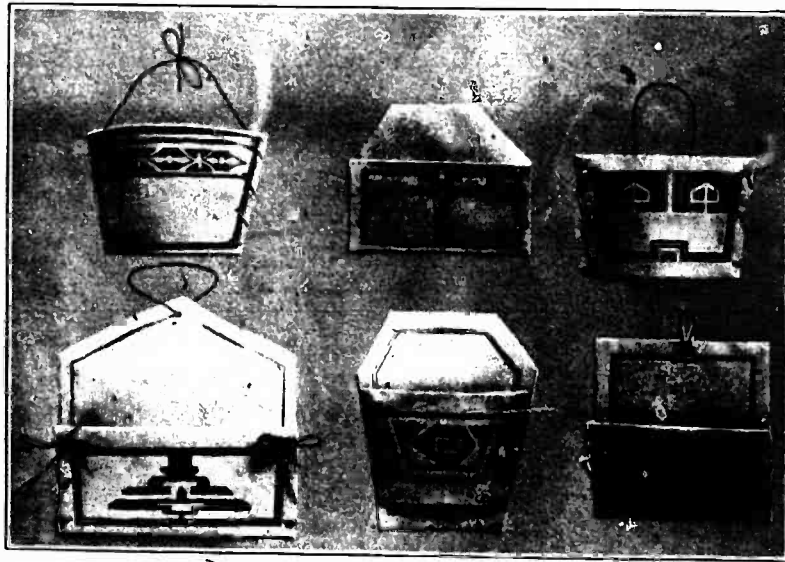
A. PORTFOLIOS, THIRD YEAR, ST. LOUIS PUBLIC SCHOOLS.

Age 9; 50 in class; 6½ hours on problem.



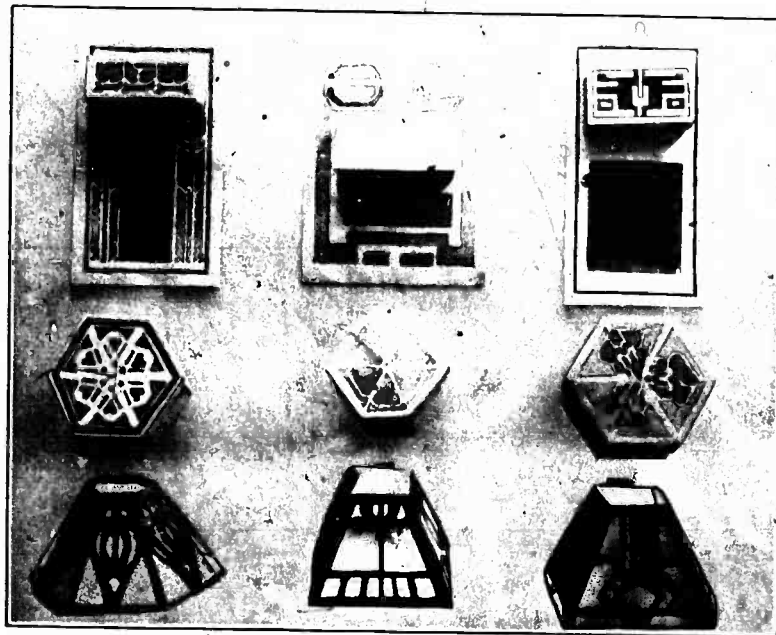
B. CARDBOARD CONSTRUCTION, SEVENTH YEAR, ST. LOUIS PUBLIC SCHOOLS.

Age 12 years; 45 in class; 8½ hours on problem.



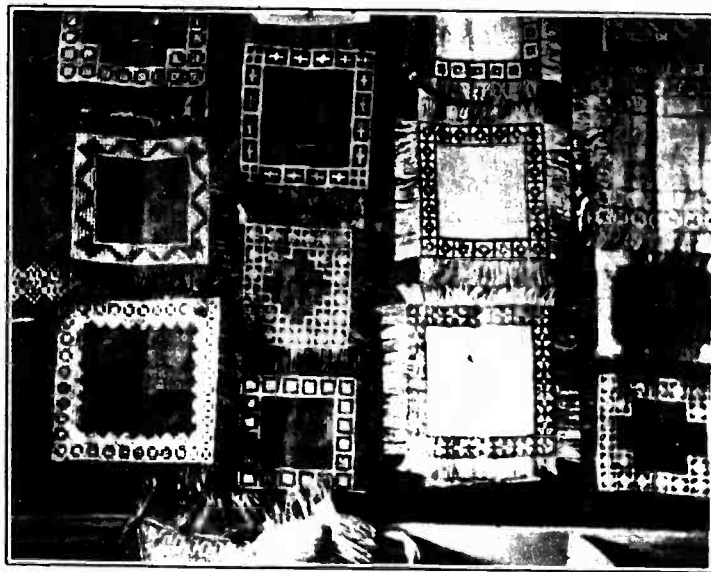
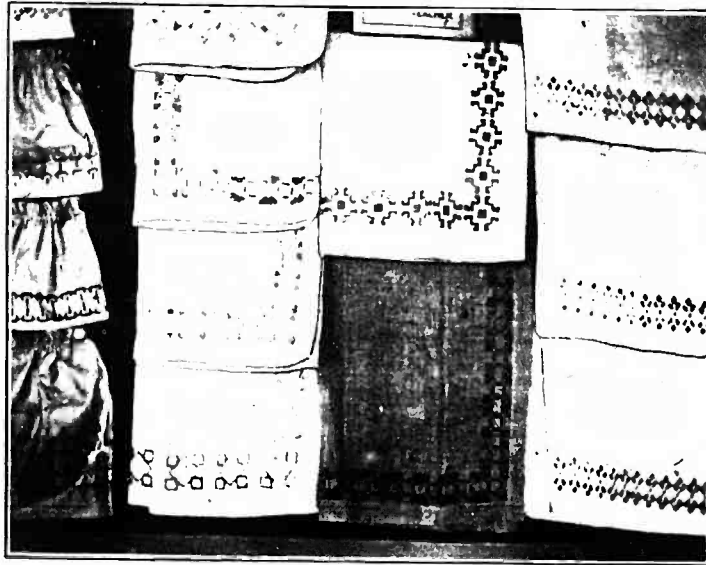
A. CONSTRUCTION WORK, FOURTH YEAR, ST. LOUIS PUBLIC SCHOOLS.

Age 10-50 in class; 6 periods on problem.

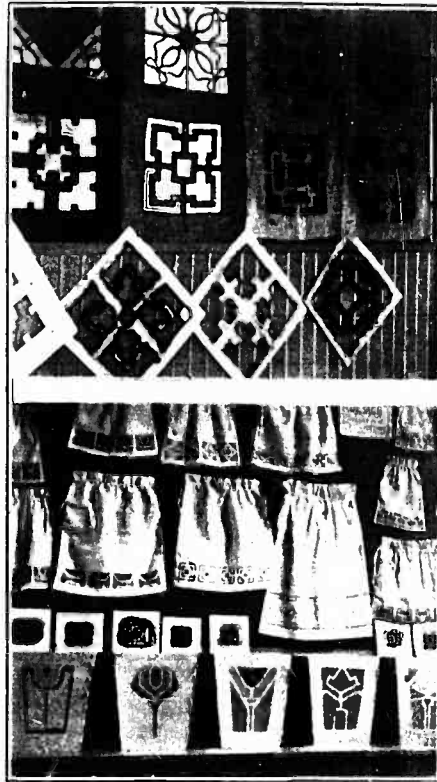


B. CONSTRUCTION WORK, FIFTH YEAR, ST. LOUIS PUBLIC SCHOOLS.

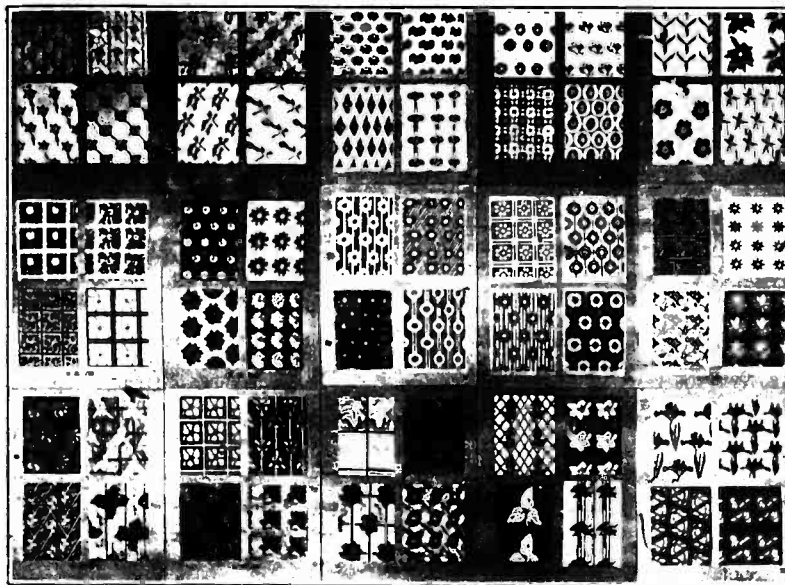
Age 11-50 in class; 7 periods on problem.



CROSS STITCH APPLIED DESIGN, SEVENTH GRADE, LOS ANGELES.



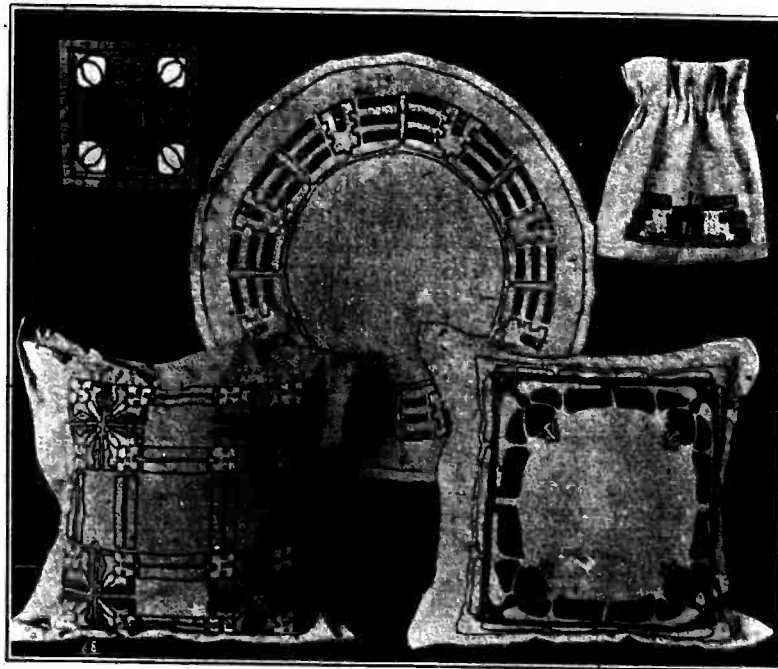
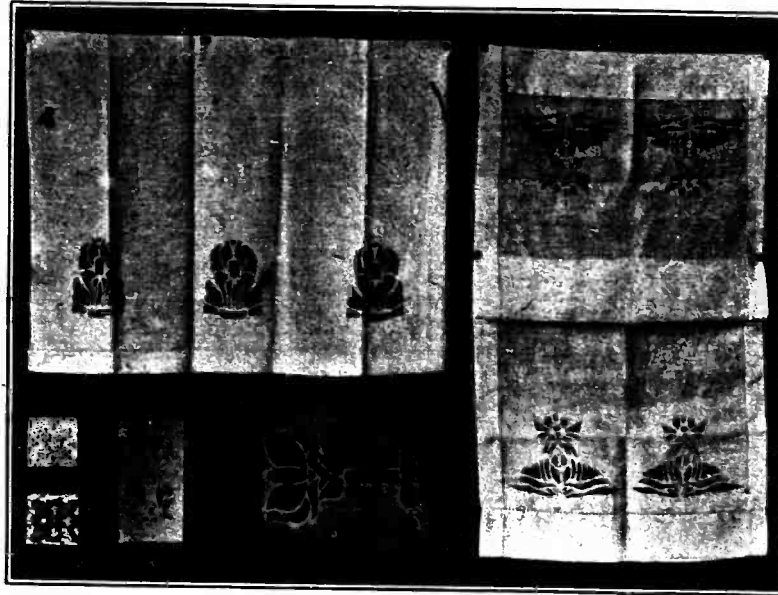
STENCILS AND APPLICATIONS, SEVENTH GRADE,  
LOS ANGELES.



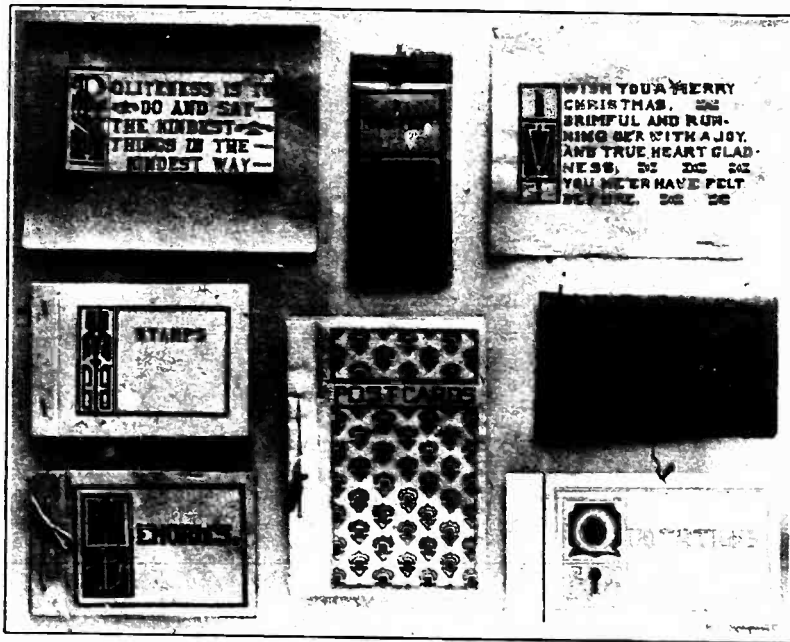
I. SURFACE DESIGNS, GRADES VI, VII, VIII, SAN FRANCISCO.



II. CONSTRUCTIVE AND DECORATIVE DESIGNS, SEVENTH AND EIGHTH GRADES, SAN FRANCISCO.

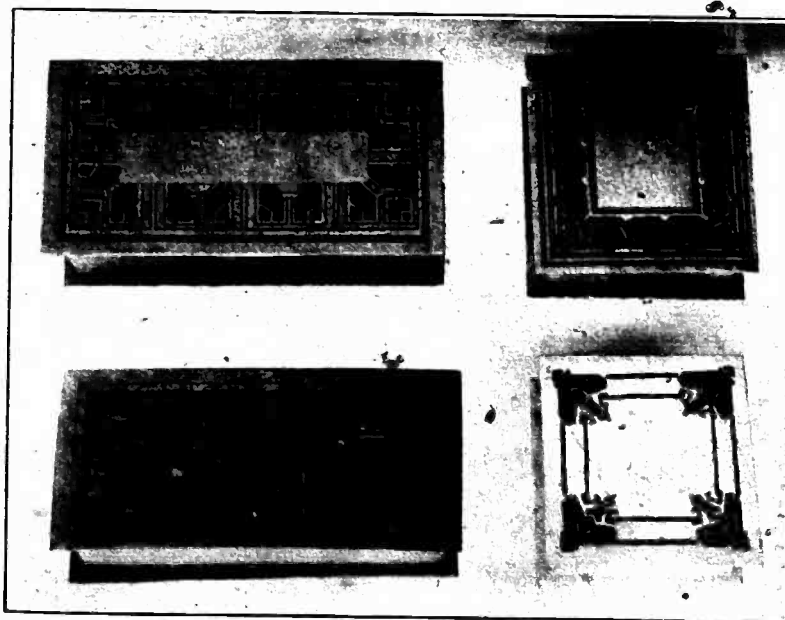


GRADE WORK IN DESIGN, BOSTON.



A. LETTERING AND CONSTRUCTION OF BOOKLETS, EIGHTH YEAR, ST. LOUIS PUBLIC SCHOOLS.

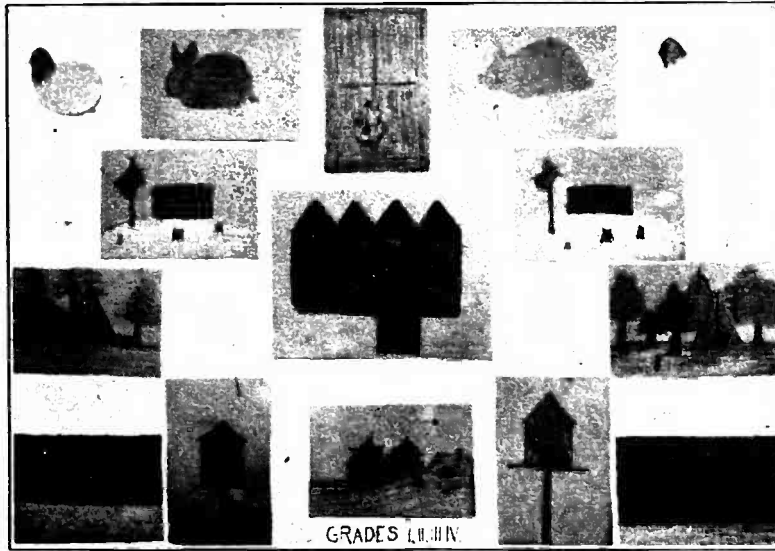
Age 14; 45 in class; 6½ periods on problem.



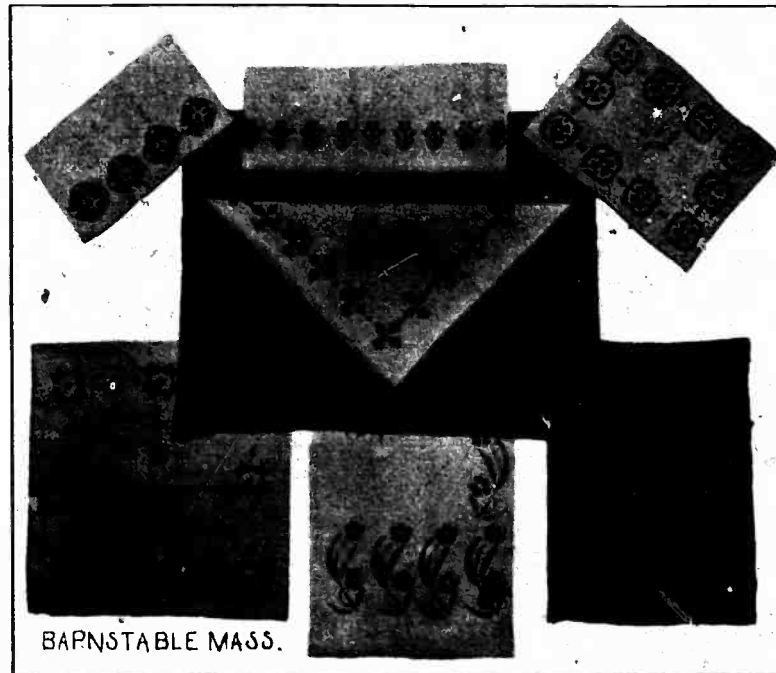
B. CARDBOARD CONSTRUCTION, EIGHTH YEAR, ST. LOUIS PUBLIC SCHOOLS.

Age 14; 45 in class; 6 hours on problem.

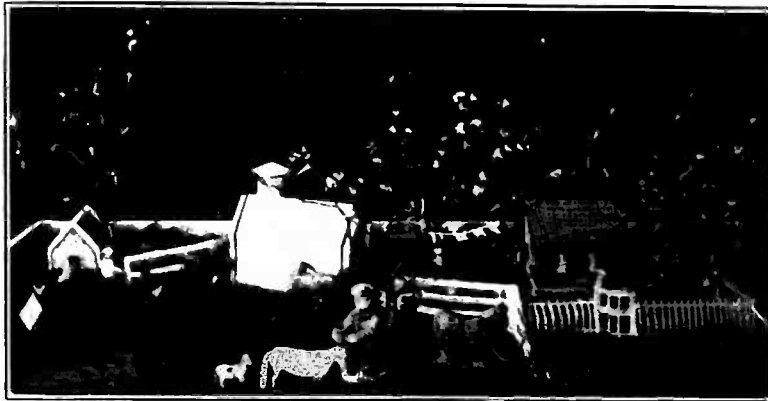




A. RURAL SCHOOL DRAWING, GRADES I, II, III, IV, BARNSTABLE, MASS.



B. RURAL SCHOOL DRAWING, HIGH SCHOOL DEPARTMENT, BARNSTABLE, MASS.



I. SAND TABLE—SPRINGTIME ON THE FARM.

Geletic construction and clay. Elementary grades. State Normal School, Buffalo, N. Y.

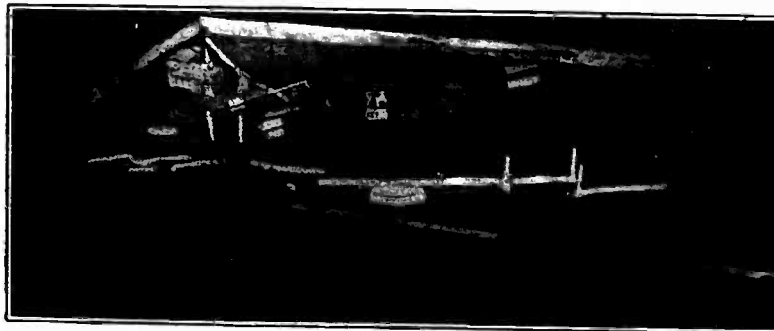


II. SAND TABLE—AN ESKIMO VILLAGE.

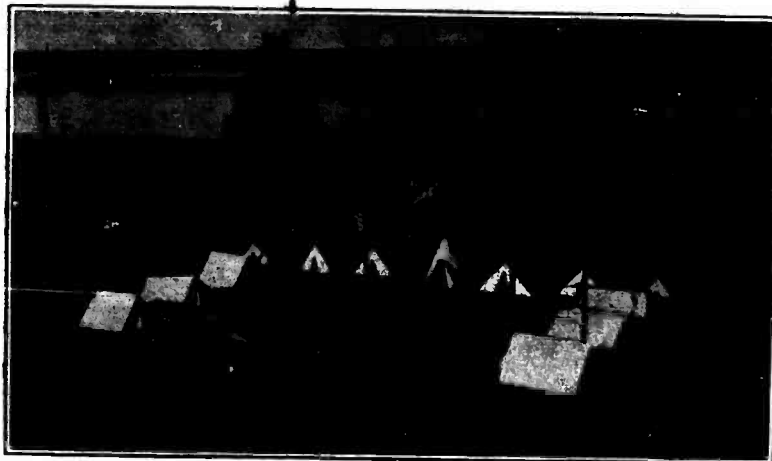
Elementary grades. Colored crayon background, clay and cotton. State Normal School, Buffalo, N. Y.



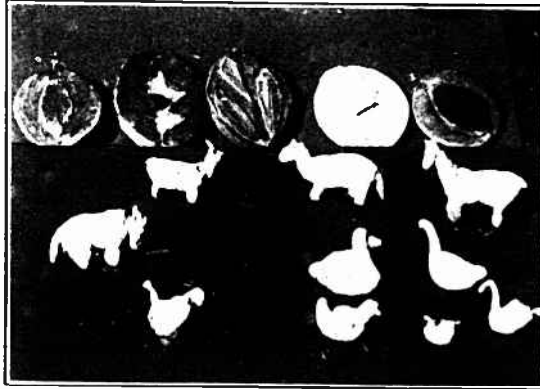
J. SAND TABLE—MAPLE SUGAR CAMP.  
Elementary grades, State Normal School, Buffalo, N. Y.



B. ELEMENTARY GRADES STATE NORMAL SCHOOL, BUFFALO N. Y.  
Illustrating breakwater and shore, with typical industries.



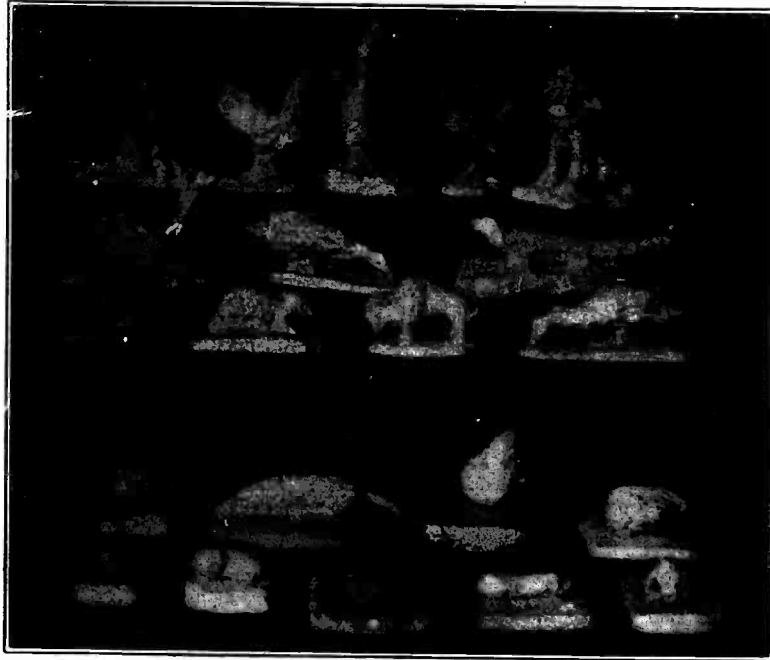
C. SAND TABLE WORK—ELEMENTARY GRADE PUPILS, WINTHROP NORMAL AND INDUSTRIAL COLLEGE, SOUTH CAROLINA.



I. FIRST GRADE CLAY WORK. NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



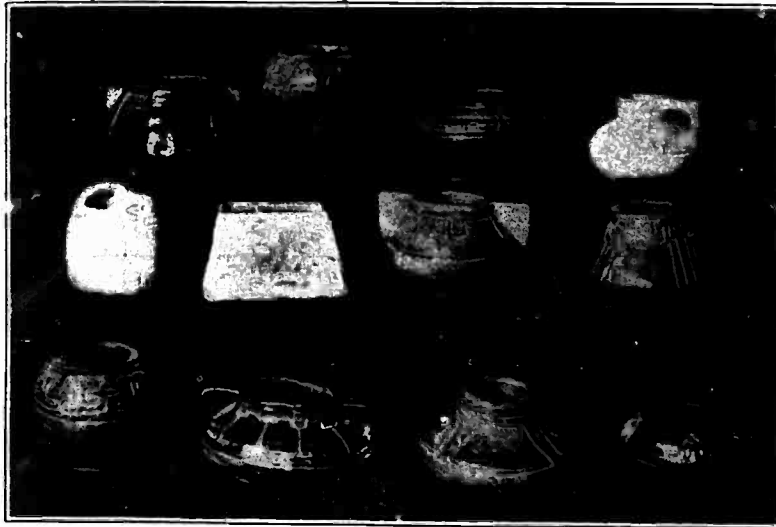
II. SECOND GRADE INDIAN POTTERY NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



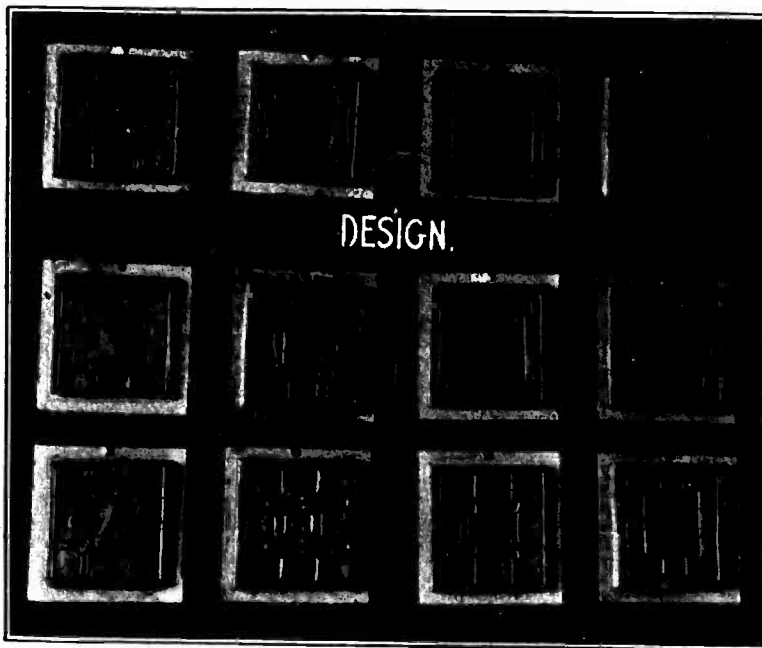
A. CLAY MODELING, SECOND AND THIRD GRADES, MINNEAPOLIS PUBLIC SCHOOLS.



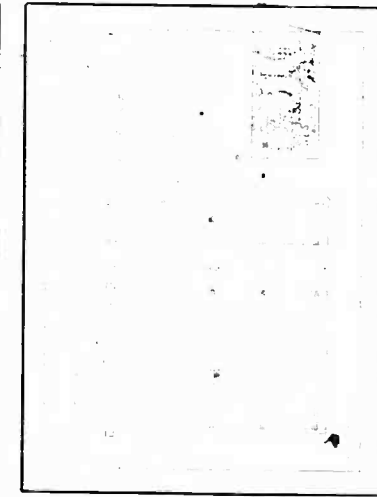
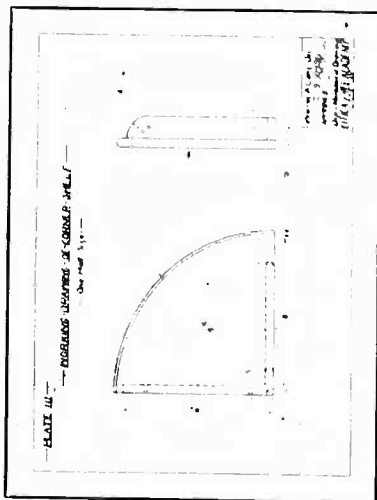
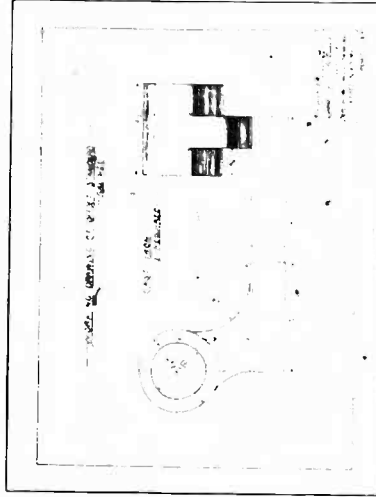
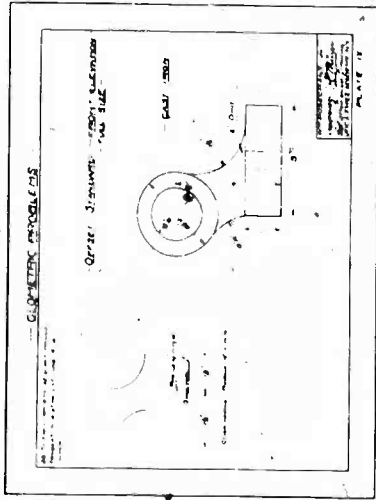
B. FIFTH AND SIXTH GRADE POTTERY, NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



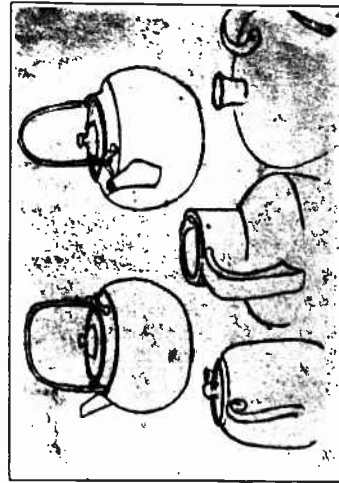
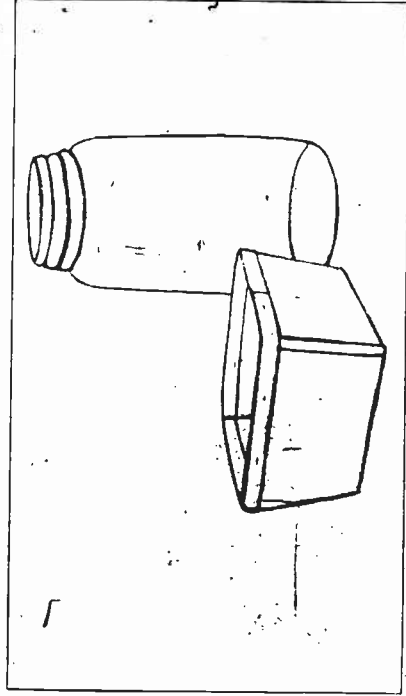
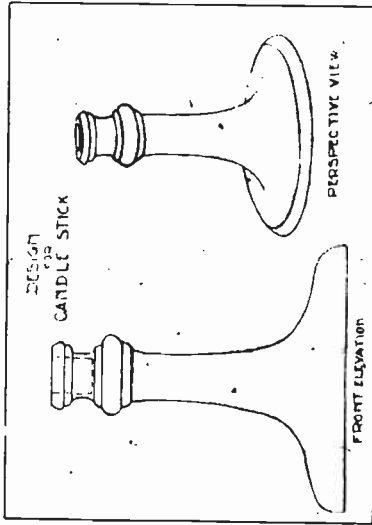
A. MODELING SIXTH GRADE, MINNEAPOLIS PUBLIC SCHOOLS.



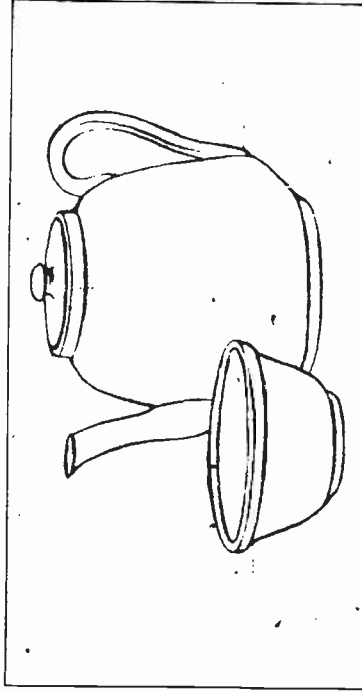
B. GRADE WORK IN DESIGN, BOSTON.



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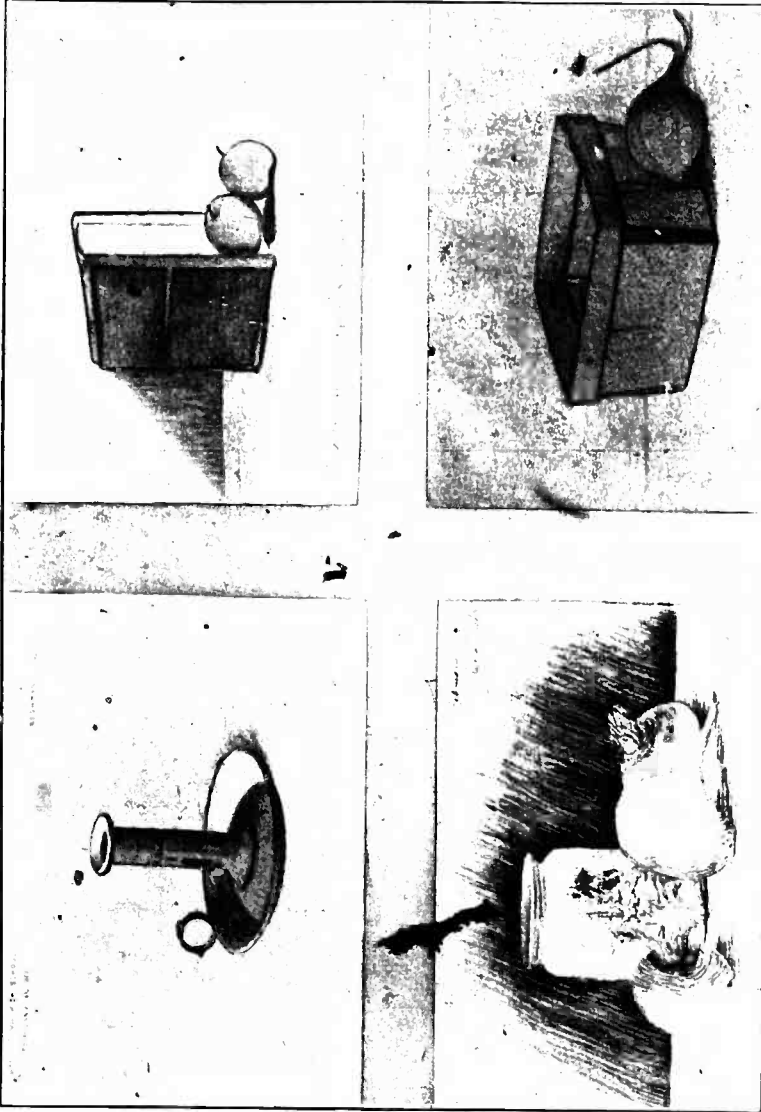


A. REPRESENTATION OBJECT DRAWING, ACCENTED OUTLINE, SECONDARY SCHOOLS, NEW YORK STATE. (Courtesy of University of State of New York)



B. REPRESENTATION OBJECT DRAWING, ACCENTED OUTLINE, SECONDARY SCHOOLS, NEW YORK STATE. (Courtesy of University of State of New York)

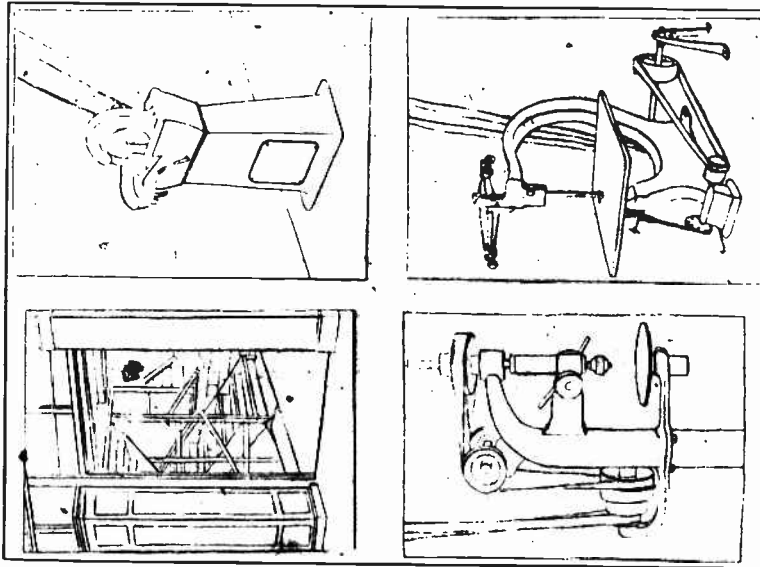




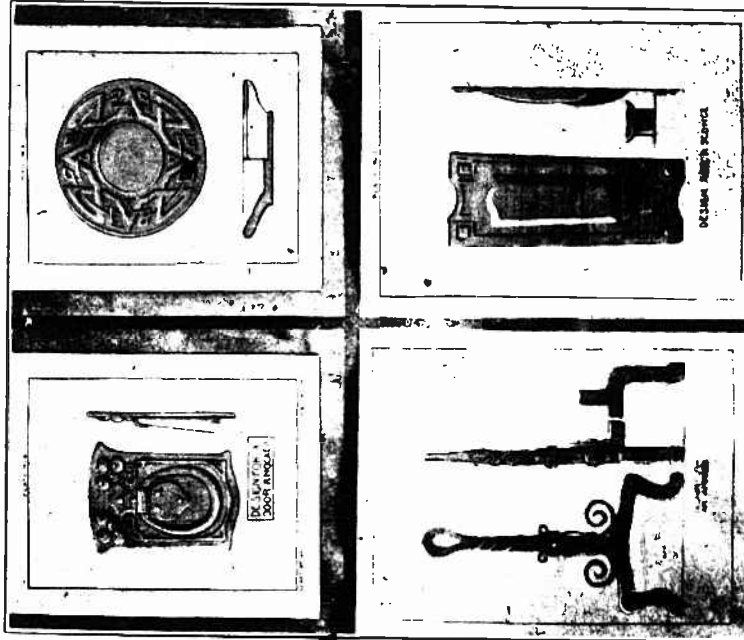
REPRESENTATION OBJECT DRAWING. SUGGESTED LIGHT AND SHADE. SECONDARY SCHOOLS, NEW YORK STATE.  
(Copyrighted by the State of New York.)

BUREAU OF EDUCATION

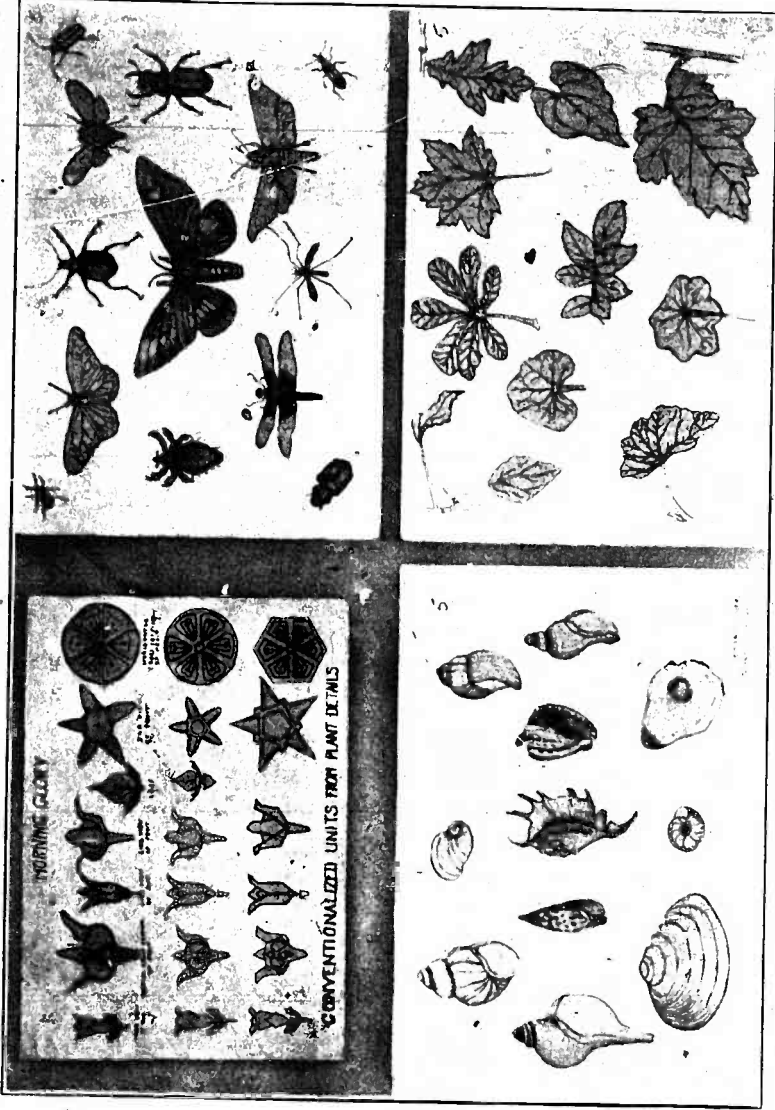
BULLETIN 1914, NO. 11, STATE 23



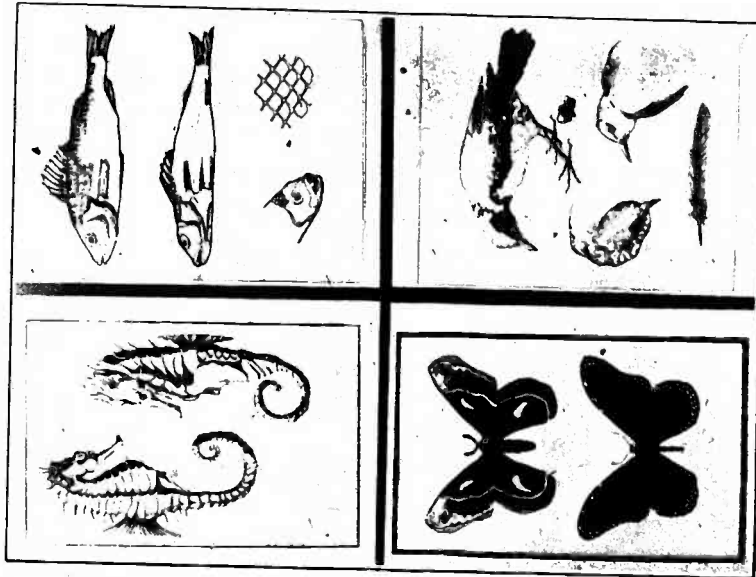
4. PROBLEMS SKETCHED BY PUPILS FROM VARIOUS SHOPS; TWO YEARS, STUYVESANT HIGH SCHOOL, NEW YORK.



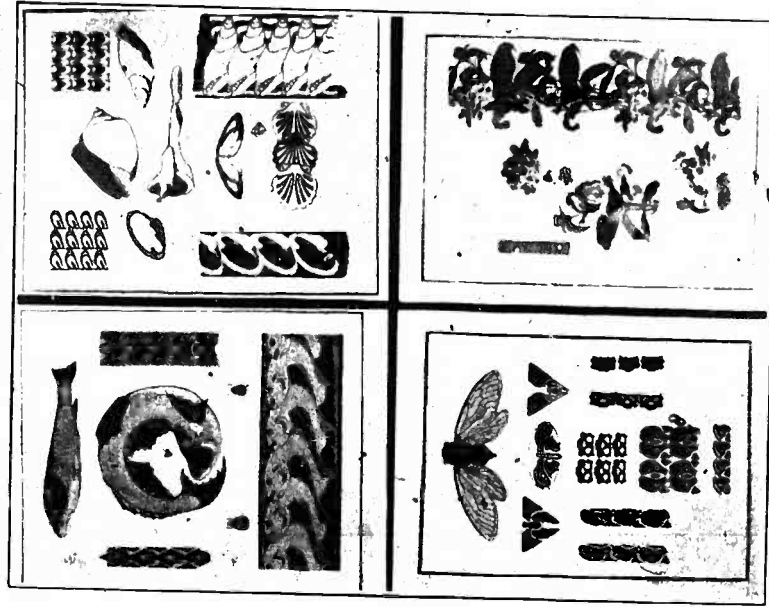
5. PROBLEMS IN CONSTRUCTIVE DESIGN FOR DEVELOPMENT IN SHOPS; FIRST YEAR, STUYVESANT HIGH SCHOOL, NEW YORK.



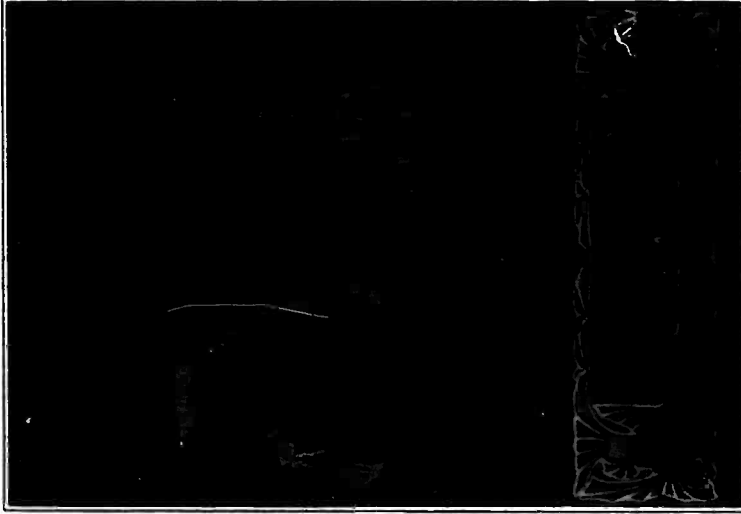
REPRESENTATION NATURE DRAWING, SECONDARY SCHOOLS OF NEW YORK STATE.



4. REPRESENTATION DRAWING, WASHINGTON IRVING HIGH SCHOOL, NEW YORK. Introductory exercises in ink and color technique, two-year's high school, first half (one-year industrial art course).



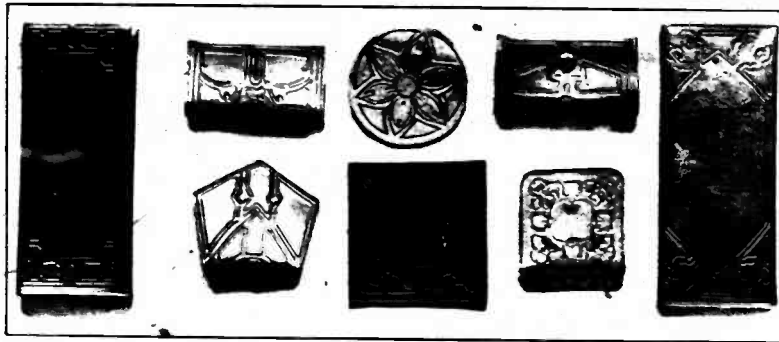
5. DESIGN, WASHINGTON IRVING HIGH SCHOOL, NEW YORK. Original design project in ink and color technique, two-year's high school, second half (one-year industrial art course).



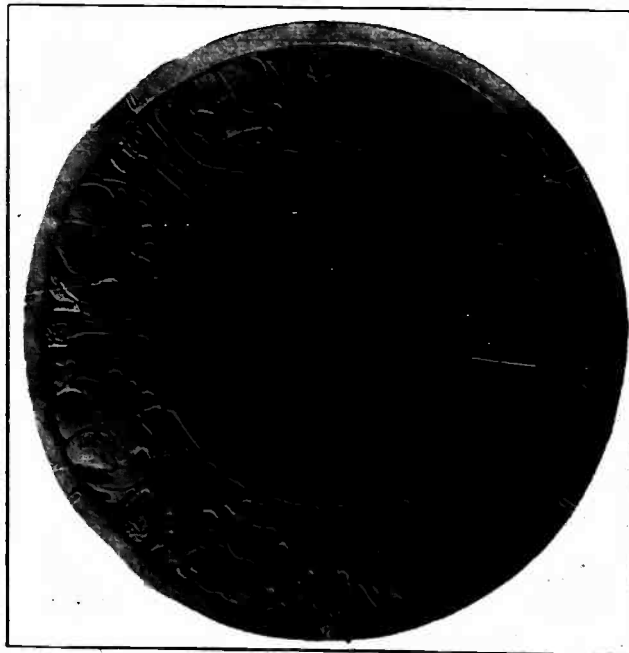
R. ORIGINAL POSTER DESIGN IN COLORS, WASHINGTON IRVING HIGH SCHOOL, NEW YORK.



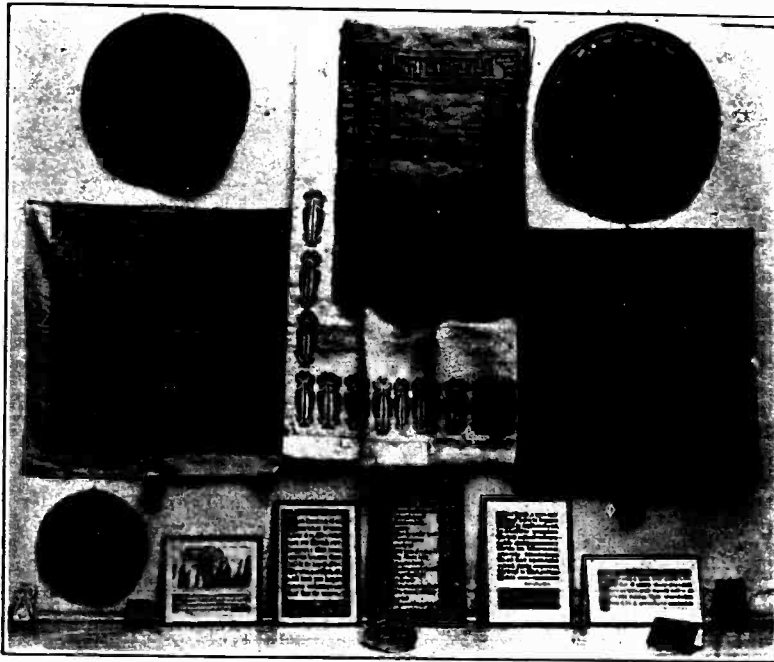
A. LETTERING, SHORT COMMERCIAL COURSE, ONE YEAR, BAYBRIDGE HIGH SCHOOL, NEW YORK.



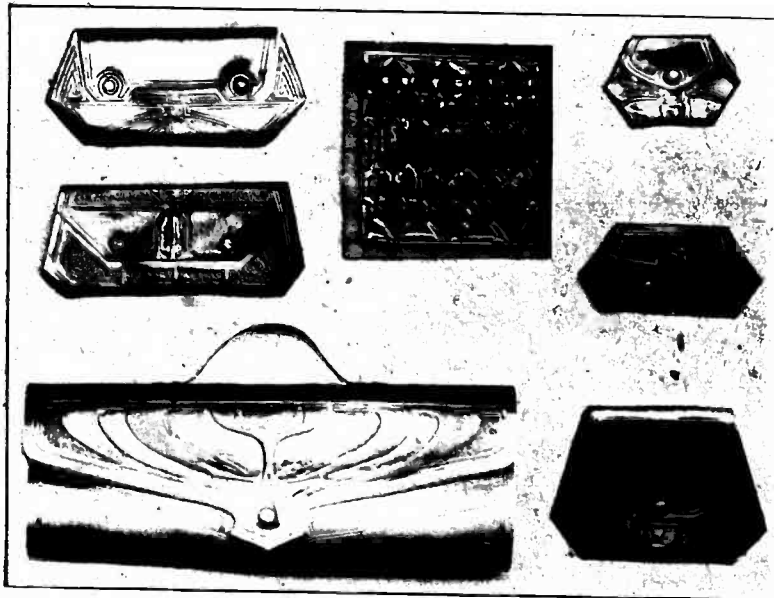
A. LEATHER WORK. HIGH SCHOOL, MINNEAPOLIS.



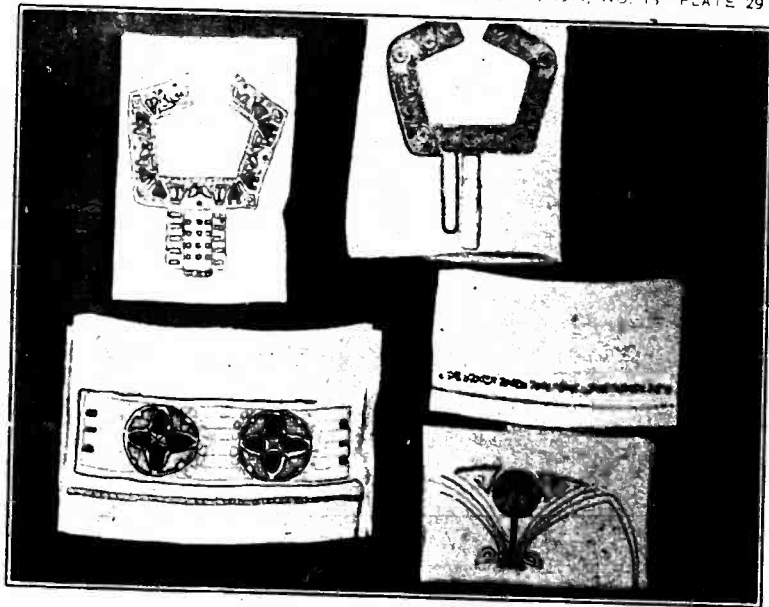
B. TOOLED LEATHER MAT. CENTRAL HIGH SCHOOL, SPRING-FIELD, MASS.



A. APPLIED DESIGN, ALL YEARS. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.

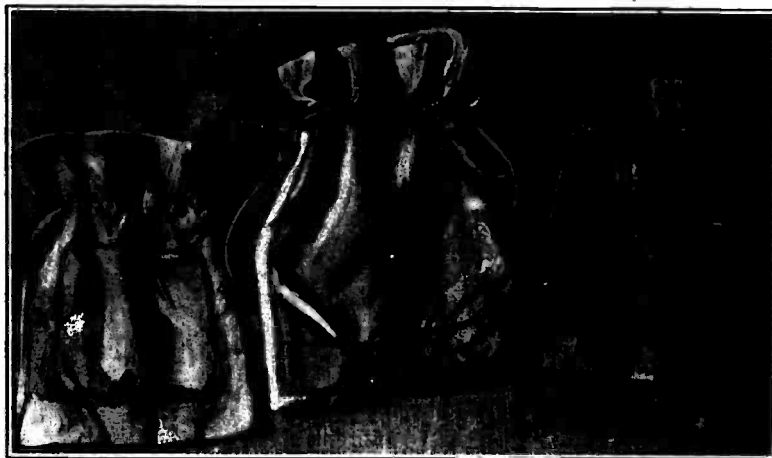


B. TOOLED LEATHER WORK. AGE 17, 24 IN CLASS; 14 PERIODS ON PROBLEM. ST. LOUIS.



ORIGINAL DESIGNS IN EMBROIDERY APPLIED TO SHIRTTWAISTS AND TABLE COVERS. HIGH SCHOOL, LOS ANGELES.

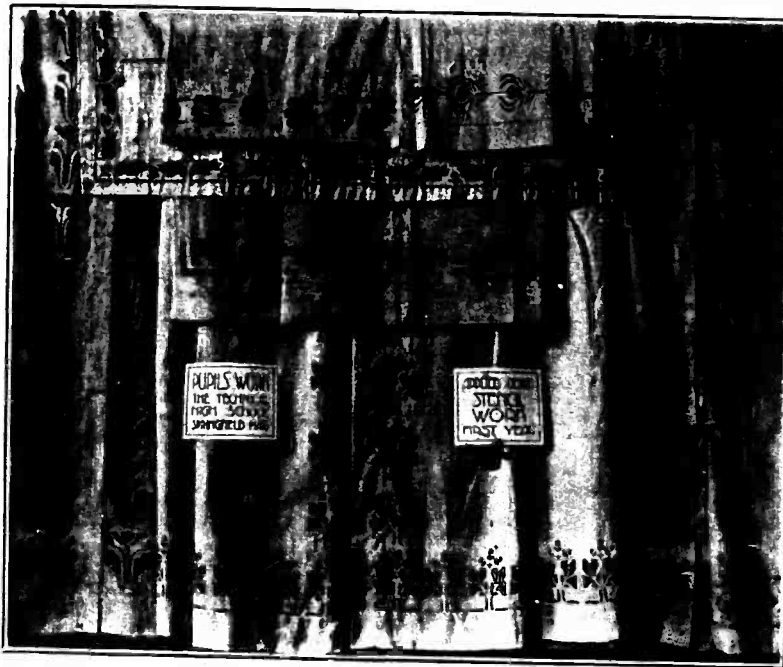




I. APPLIED DESIGN IN NEEDLEWORK, SECOND YEAR HIGH SCHOOL, NEWMAN  
MANUAL TRAINING SCHOOL, NEW ORLEANS.



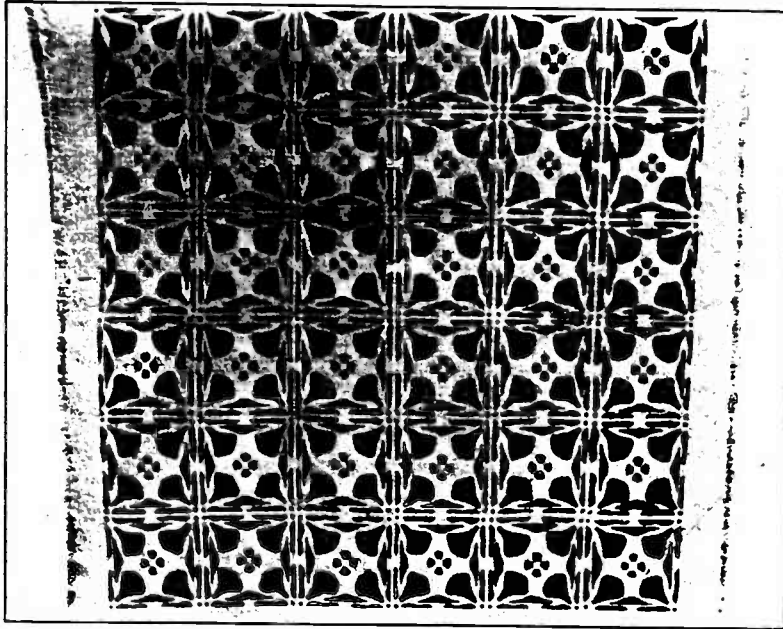
II. APPLIED DESIGN IN NEEDLEWORK, FIRST YEAR HIGH SCHOOL, NEWMAN  
MANUAL TRAINING SCHOOL, NEW ORLEANS.



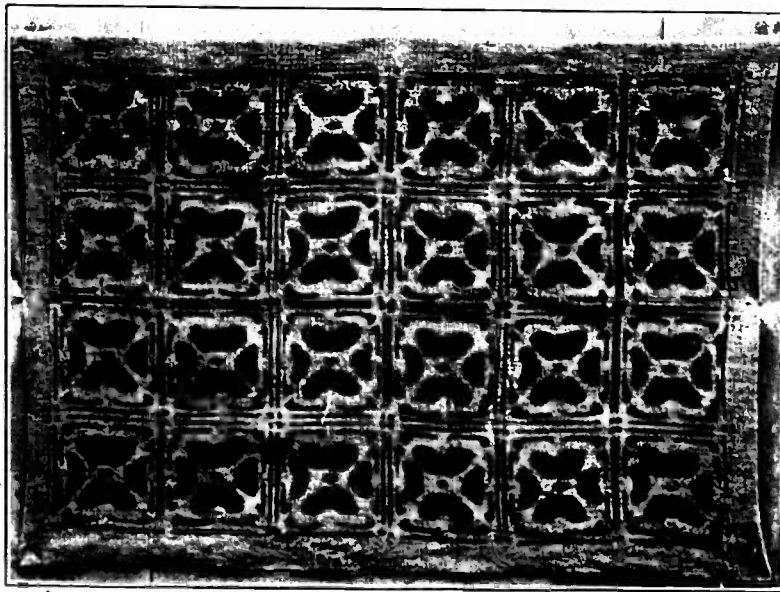
A. APPLIED DESIGN, STENCIL WORK, FIRST YEAR, TECHNICAL HIGH SCHOOL, SPRINGFIELD, MASS.



B. STENCILED PILLOWS, FIRST YEAR, NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.

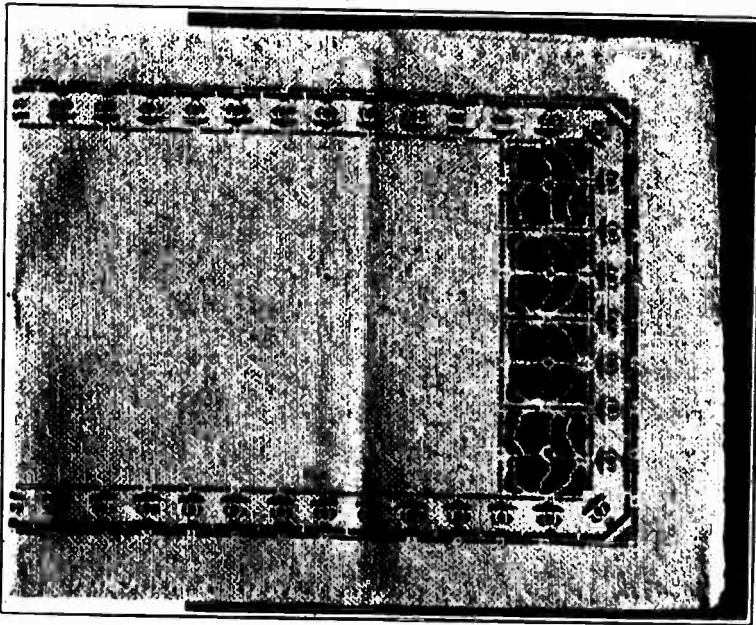


A. STENCIL DESIGN ON CRASH. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.

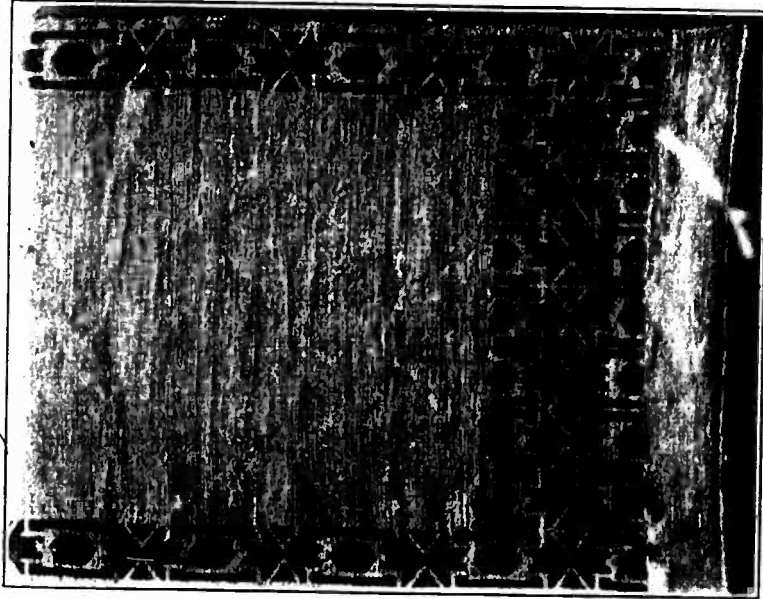


B. BLOCK PRINT AND EMBROIDERY. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.

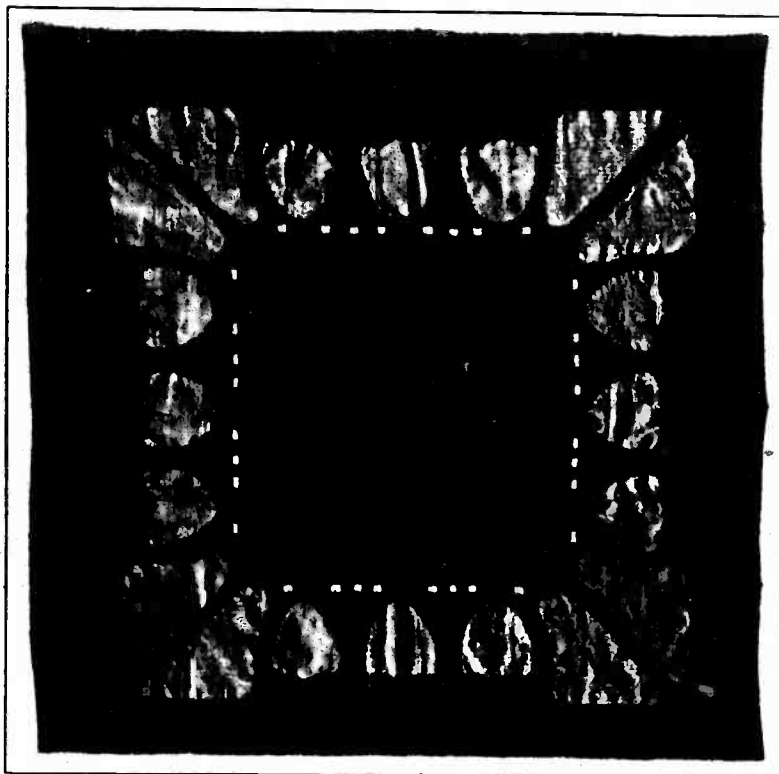
BUREAU OF EDUCATION



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STENCIL DESIGNS. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.



APPLIQUÉ CUSHION, CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.



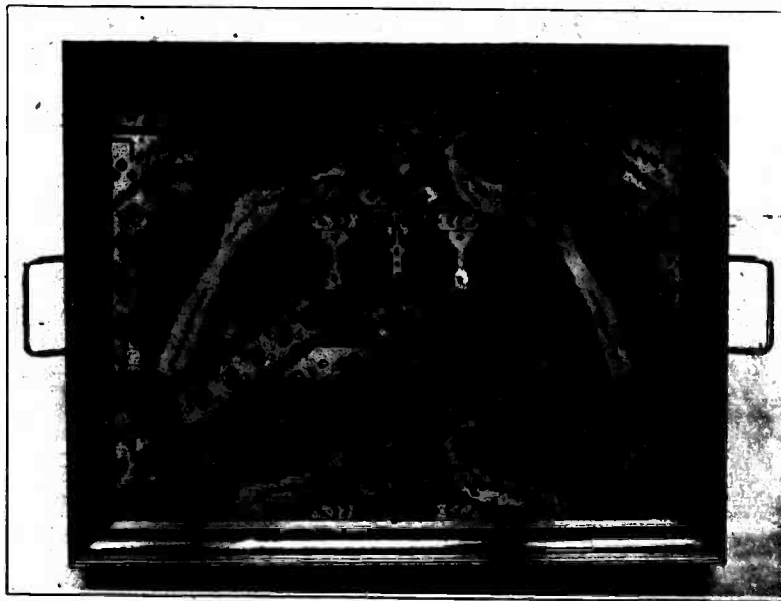
A. CUT STENCIL, CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.



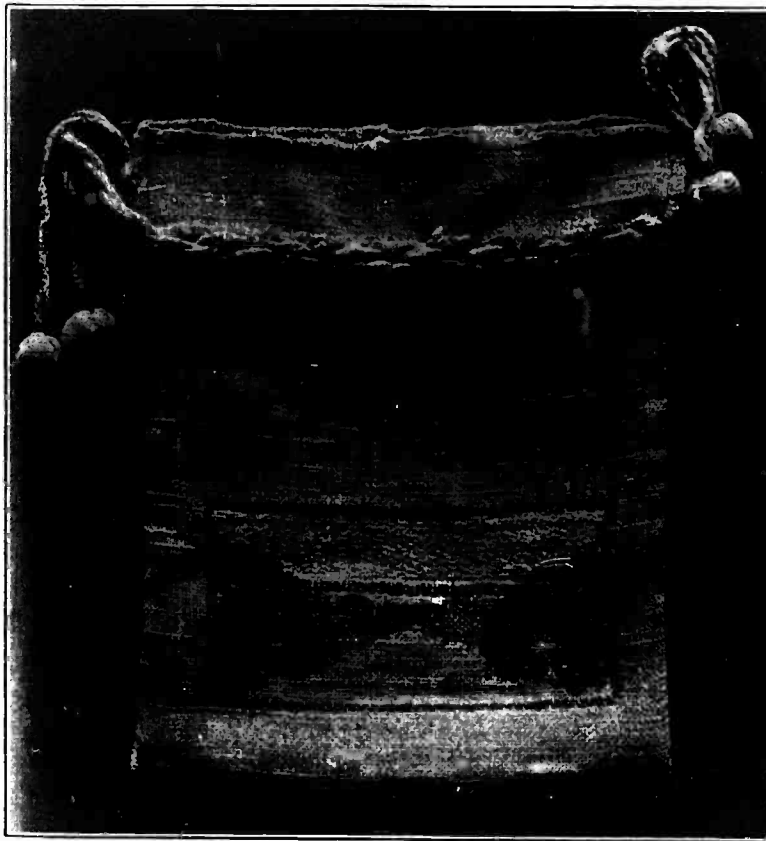
B. TAPESTRY DESIGN, CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.



A. CUT LEATHER AND SILK. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.

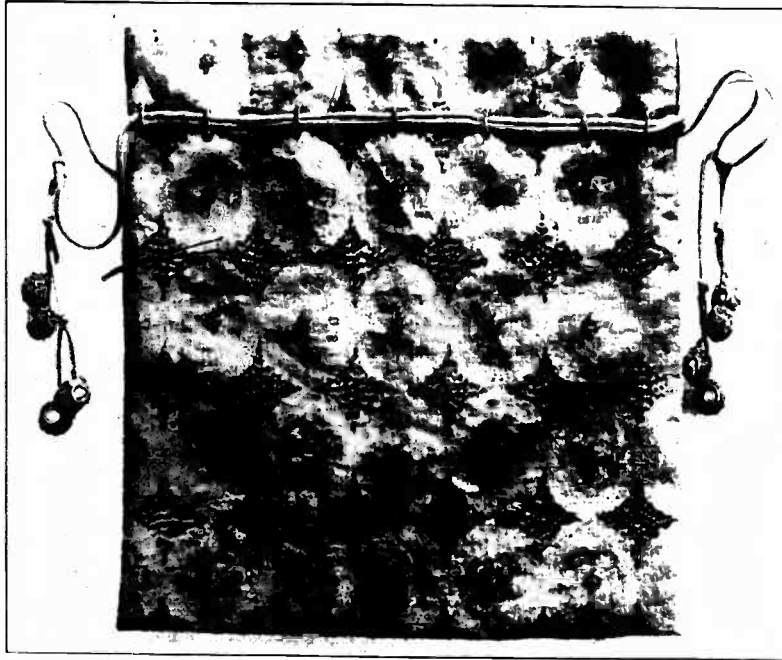


B. ORIGINAL DESIGN FOR TAPESTRY MADE INTO A SERVING TRAY. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.

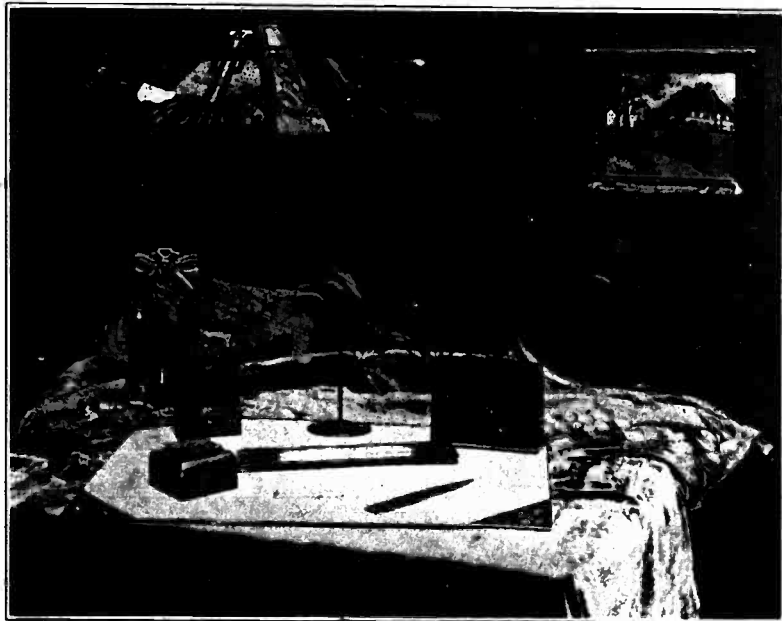


EMBROIDERED BAG. CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.



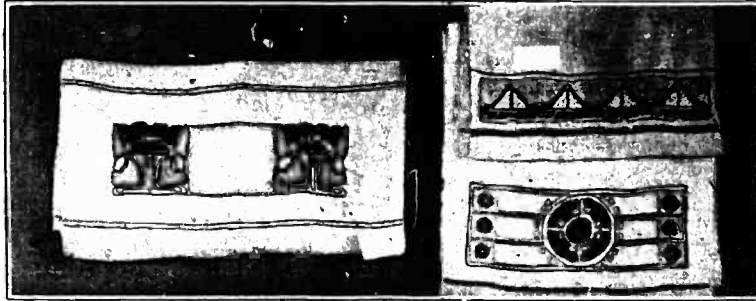


A. BLOCK PRINT AND EMBROIDERY ON BAG DESIGN: CENTRAL HIGH SCHOOL, SPRINGFIELD, MASS.



B. WORK OF ONE STUDENT (HOLT CONDON). MANUAL ARTS HIGH SCHOOL, LOS ANGELES.

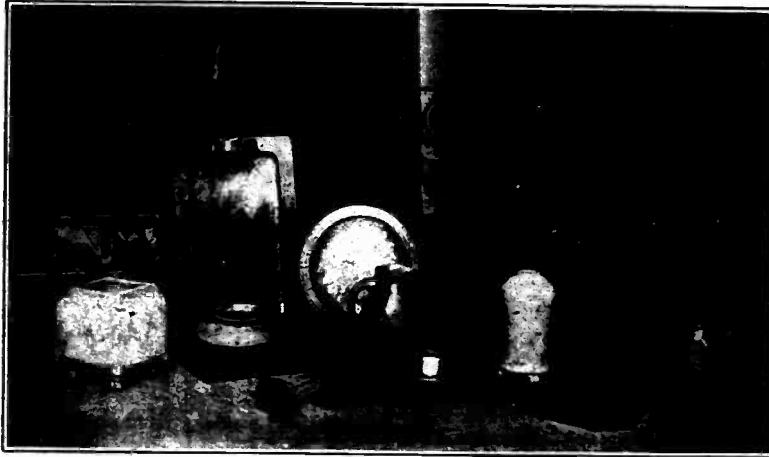
(Under direction of Douglas Donaldson.)



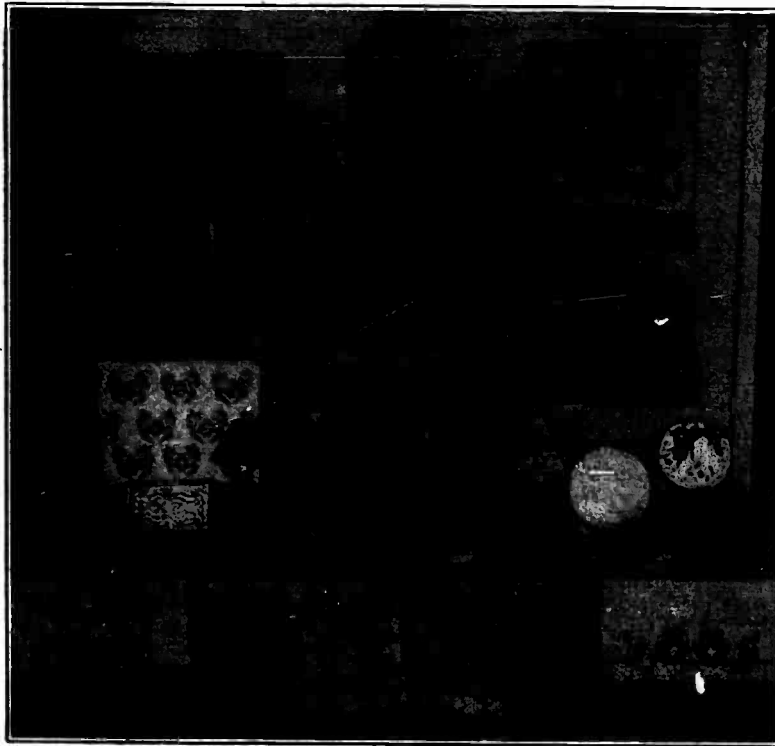
I. ORIGINAL DESIGN IN EMBROIDERY APPLIED TO SHIRTTWAISTS AND TABLE COVERS. HIGH SCHOOL, LOS ANGELES.



II. COPPER, SILVER, AND ENAMEL WORK. MANUAL ARTS HIGH SCHOOL, LOS ANGELES.



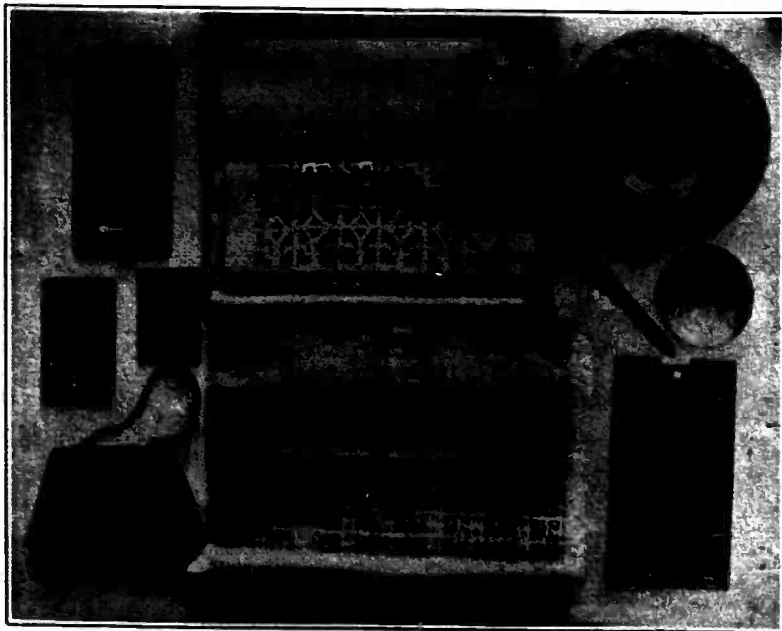
J. CONSTRUCTIVE AND DECORATIVE DESIGN. AGE 15-18 YEARS. 25 IN CLASS.  
HIGH SCHOOL, ST. LOUIS.



B. CONSTRUCTIVE AND DECORATIVE DESIGN; SECOND, THIRD, FOURTH YEARS;  
FIVE HOURS A WEEK; AGE 14-18. NEW TRIER TOWNSHIP HIGH SCHOOL KENIL-  
WORTH, ILL.



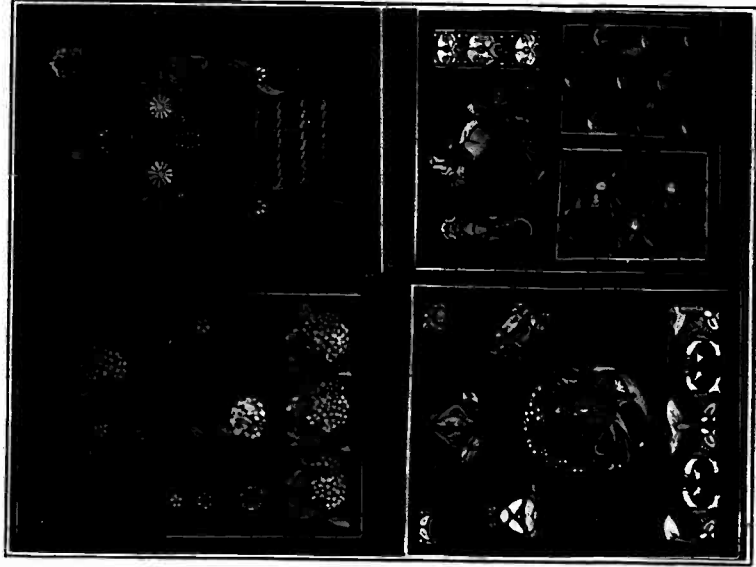
A. CONSTRUCTIVE AND DECORATIVE DESIGN. AGE 14-20 YEARS. 25 IN CLASS. EVENING HIGH SCHOOL, ST. LOUIS.



B. CONSTRUCTIVE DESIGN. AGE 14-20 YEARS. 25 IN CLASS. THREE PERIODS A WEEK. EVENING HIGH SCHOOL, ST. LOUIS.

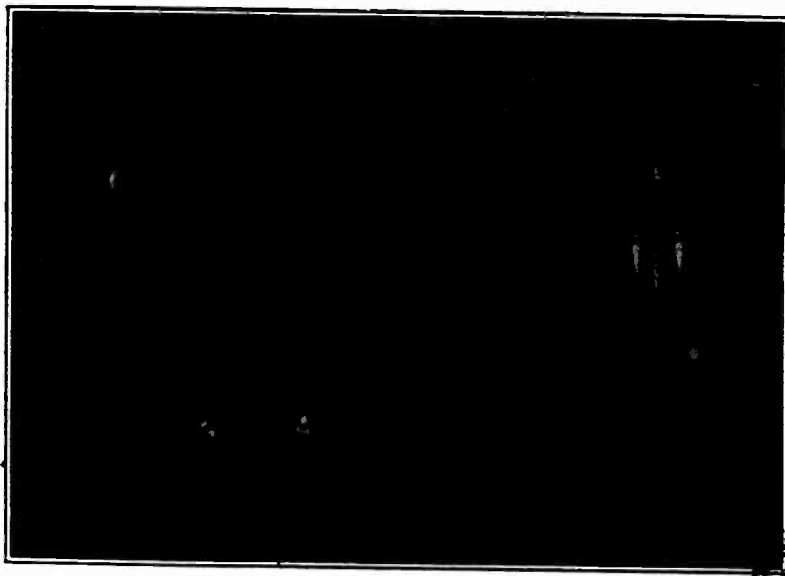


A. WORK IN SILVER AND COPPER BY THIRD AND FOURTH YEAR CLASSES, NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.

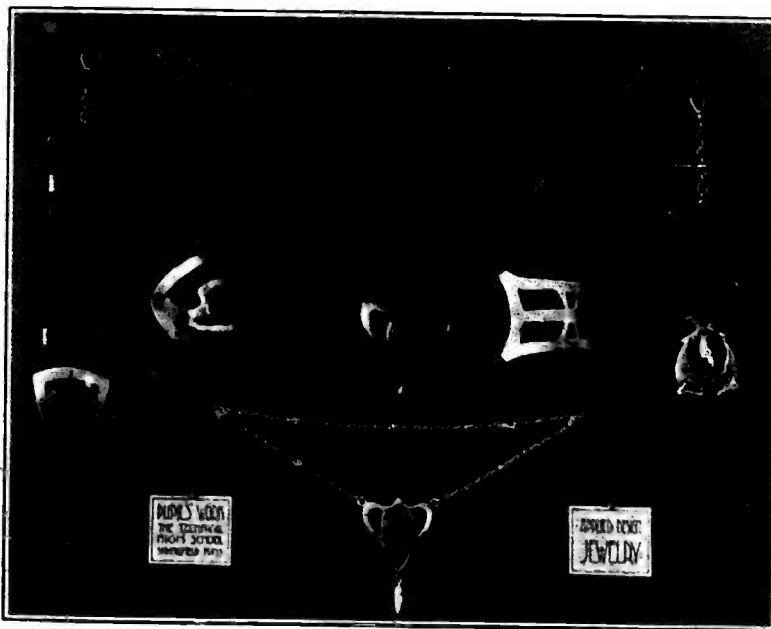


B. DESIGN. ORIGINAL ADAPTATIONS OF MOTIFS TAKEN FROM FLOWERS AND PREPARED SPECIMENS, WASHINGTON IRVING HIGH SCHOOL, NEW YORK.

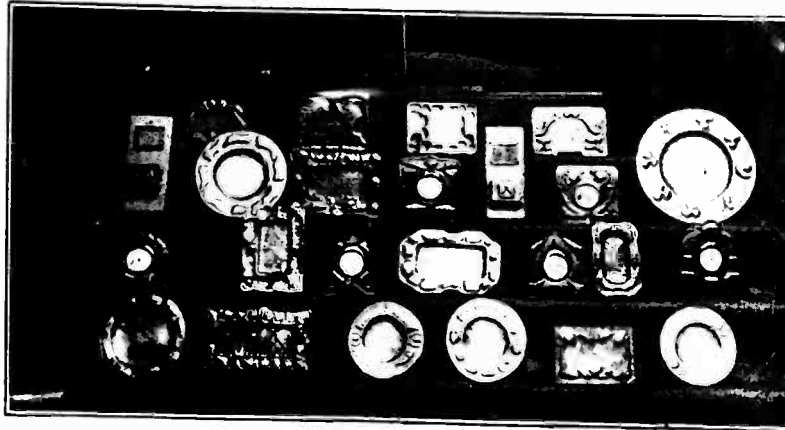
(From annual report of a teacher for high schools, 1912-13.)



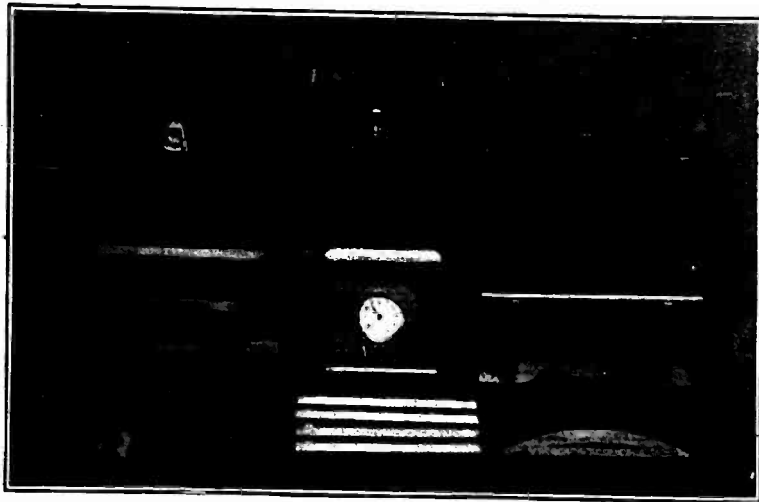
A. JEWELRY. BOSTON PUBLIC SCHOOLS.



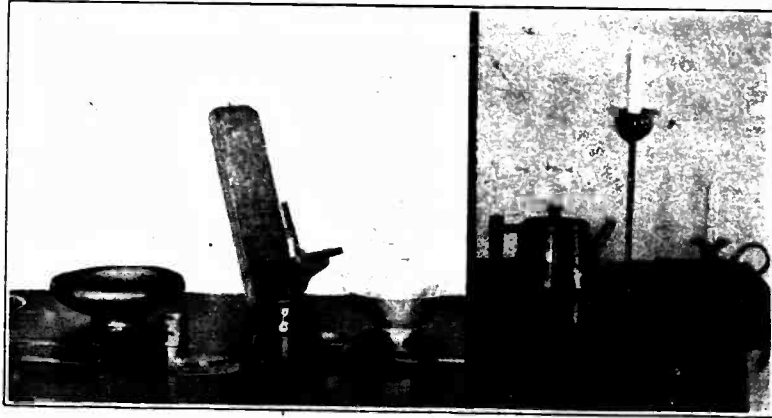
B. APPLIED DESIGN: JEWELRY. TECHNICAL HIGH SCHOOL. THIRD YEAR. SPRINGFIELD, MASS.



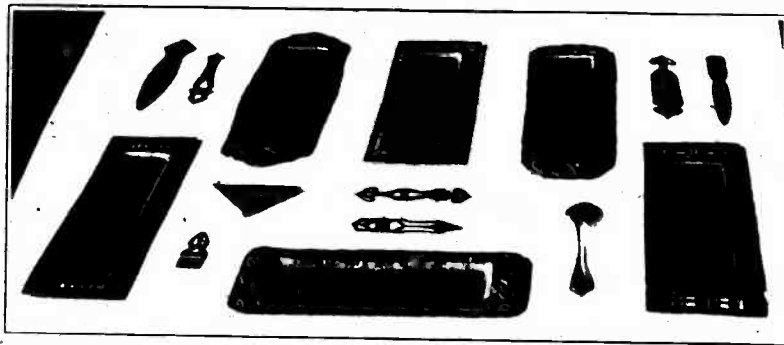
I. METAL WORK, SIXTH GRADE BOYS, NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



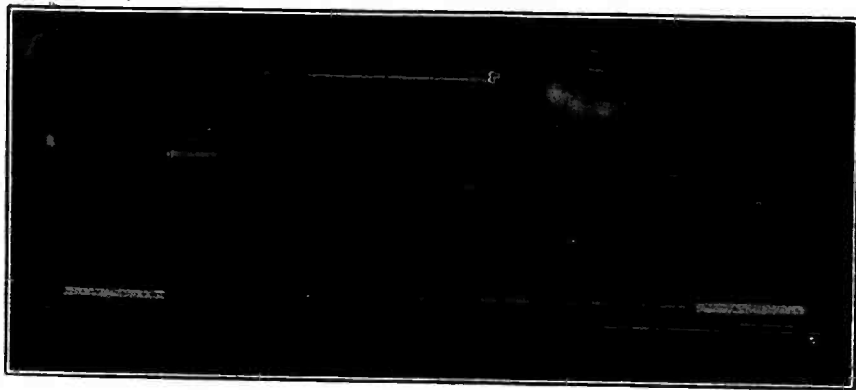
II. WOODWORK, SEVENTH GRADE BOYS, NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



J. SILVER AND COPPER WORK. TECHNICAL HIGH SCHOOL, NEWTON, MASS.



K. METAL WORK. BOSTON PUBLIC SCHOOLS

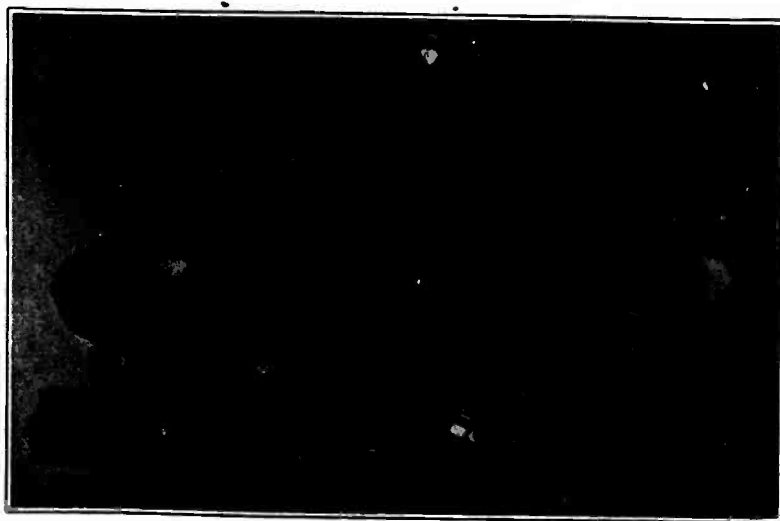


C. METAL DESK SET. BOSTON PUBLIC SCHOOLS.

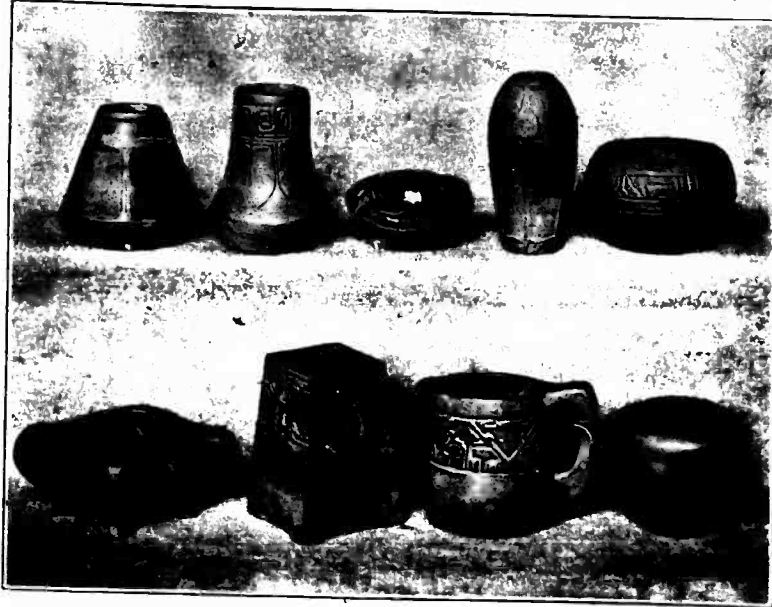




A. APPLIED ART. POLYTECHNIC ELEMENTARY SCHOOL, PASADENA, CAL.



B. METAL WORK. BOSTON PUBLIC SCHOOLS.



A. POTTERY. AGE 18. 25 IN CLASS. 103 HOURS ON PROBLEM. HIGH SCHOOL. ST. LOUIS.



B. APPLIED DESIGN; POTTERY. TECHNICAL HIGH SCHOOL. SECOND YEAR. SPRINGFIELD, MASS.



A. FIRST AND SECOND YEAR POTTERY, METAL WORK, AND EMBROIDERY. HIGH SCHOOL, NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



B. POTTERY. FIRST AND SECOND YEARS. NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.



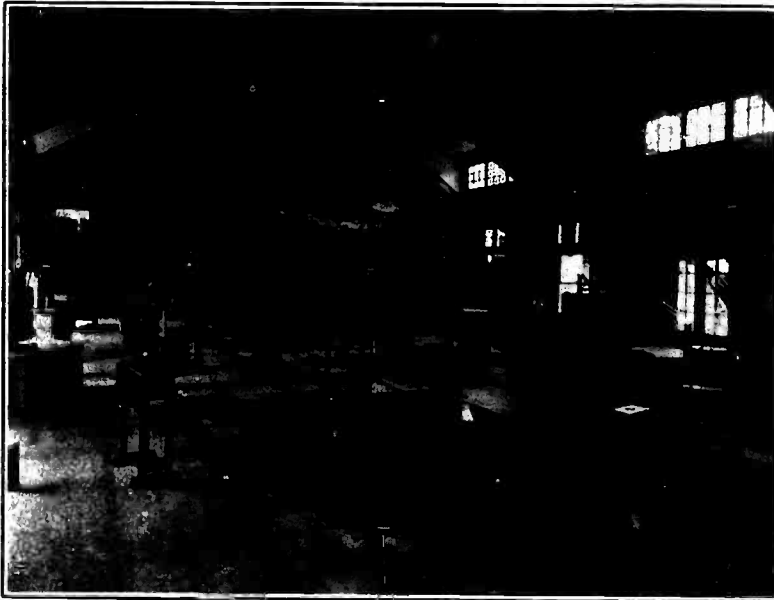
C. POTTERY TEA SET. THIRD YEAR HIGH SCHOOL, NEWMAN MANUAL TRAINING SCHOOL, NEW ORLEANS.



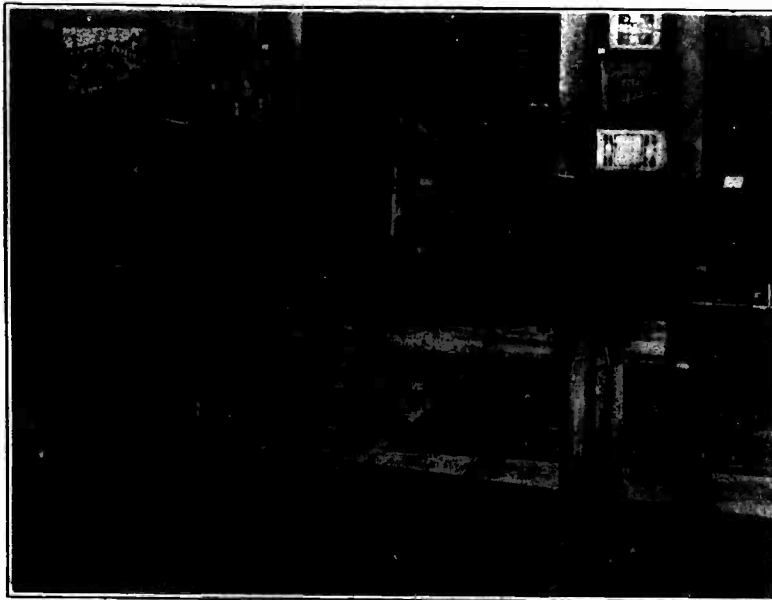
I. APPLIED ART. POLYTECHNIC ELEMENTARY SCHOOL, PASADENA, CAL.  
(Under direction of Rudolph F. Schaeffer)



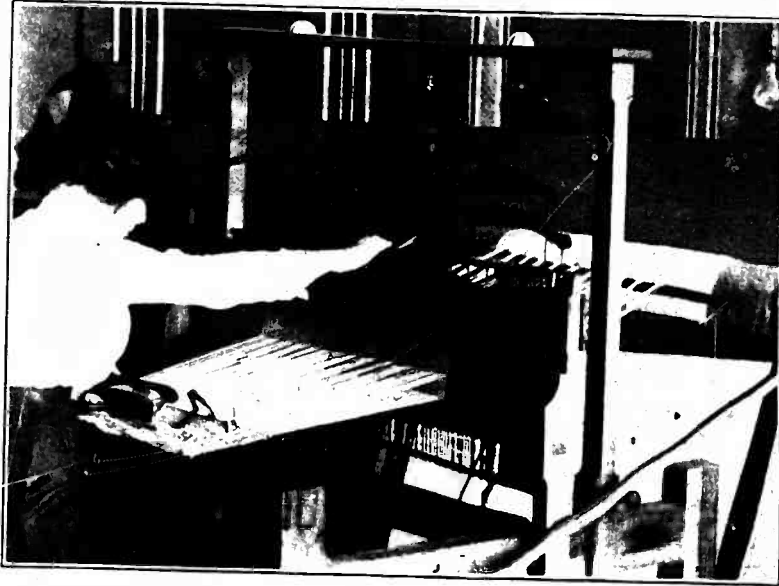
H. CONSTRUCTION IN WOOD AND METAL. BOSTON PUBLIC SCHOOLS.



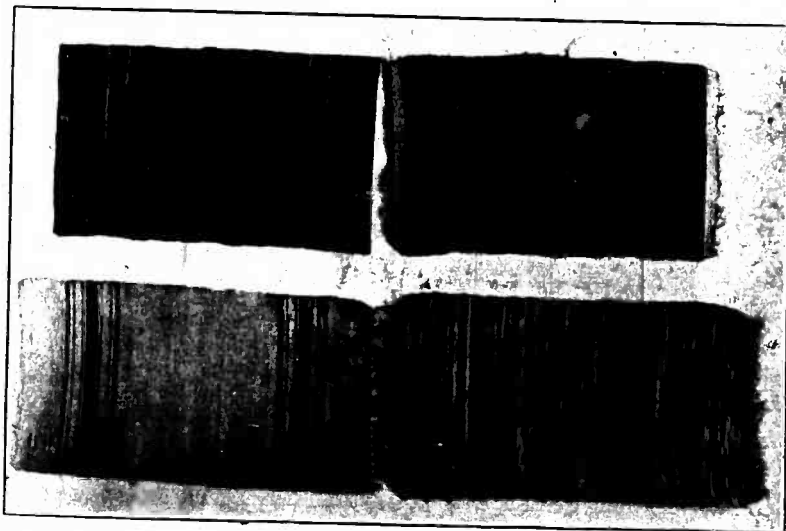
4. EXHIBITION OF DRAWING AND MANUAL ARTS. POLYTECHNIC ELEMENTARY SCHOOL, PASADENA, CAL.



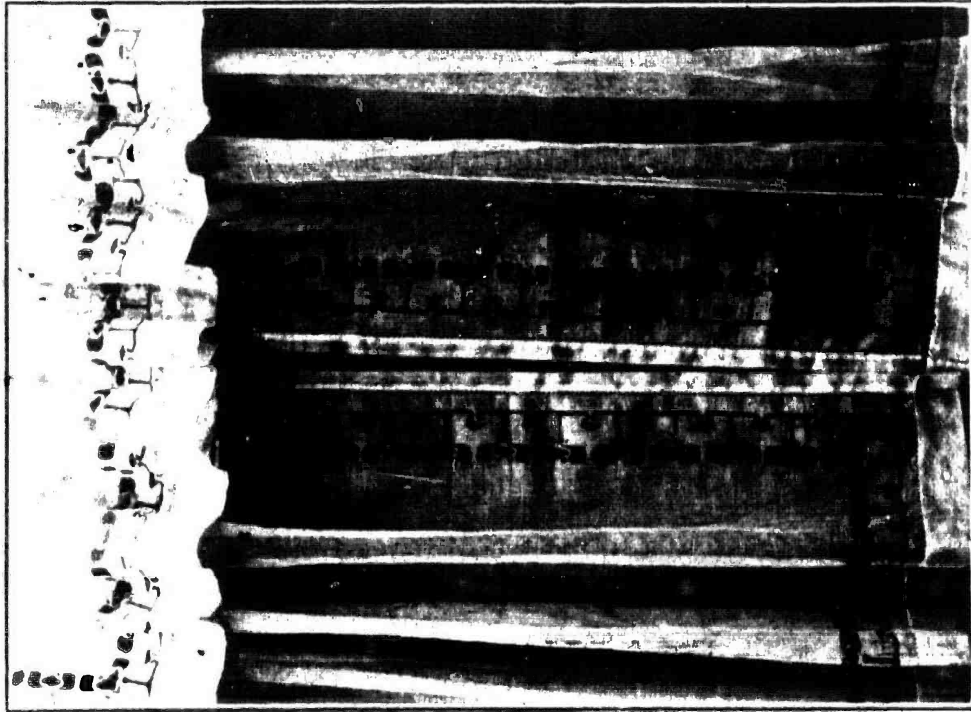
8. APPLIED ART. POLYTECHNIC ELEMENTARY SCHOOL, PASADENA, CAL.  
(Under direction of Rudolph F. Schaeffer.)



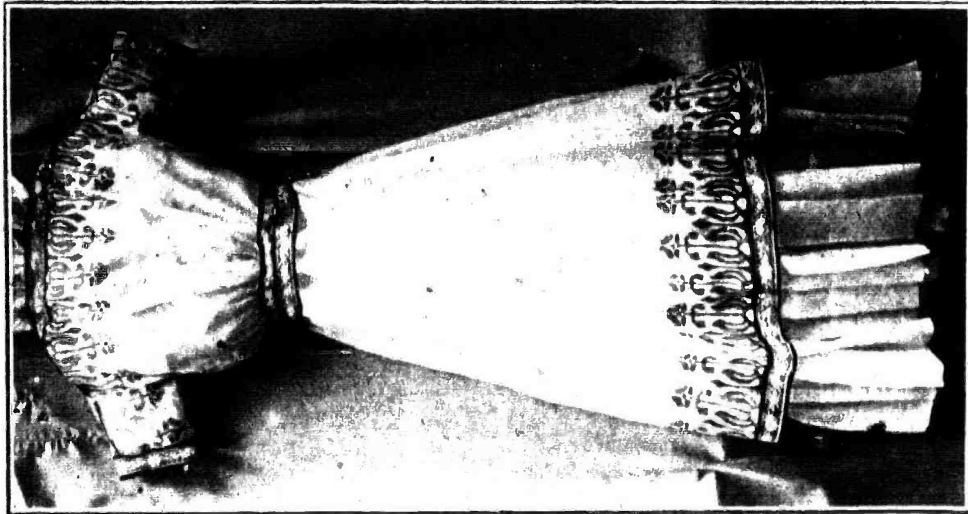
4. SWEDISH LOOM MADE BY BOYS IN THE EAST TECHNICAL HIGH SCHOOL, CLEVELAND.



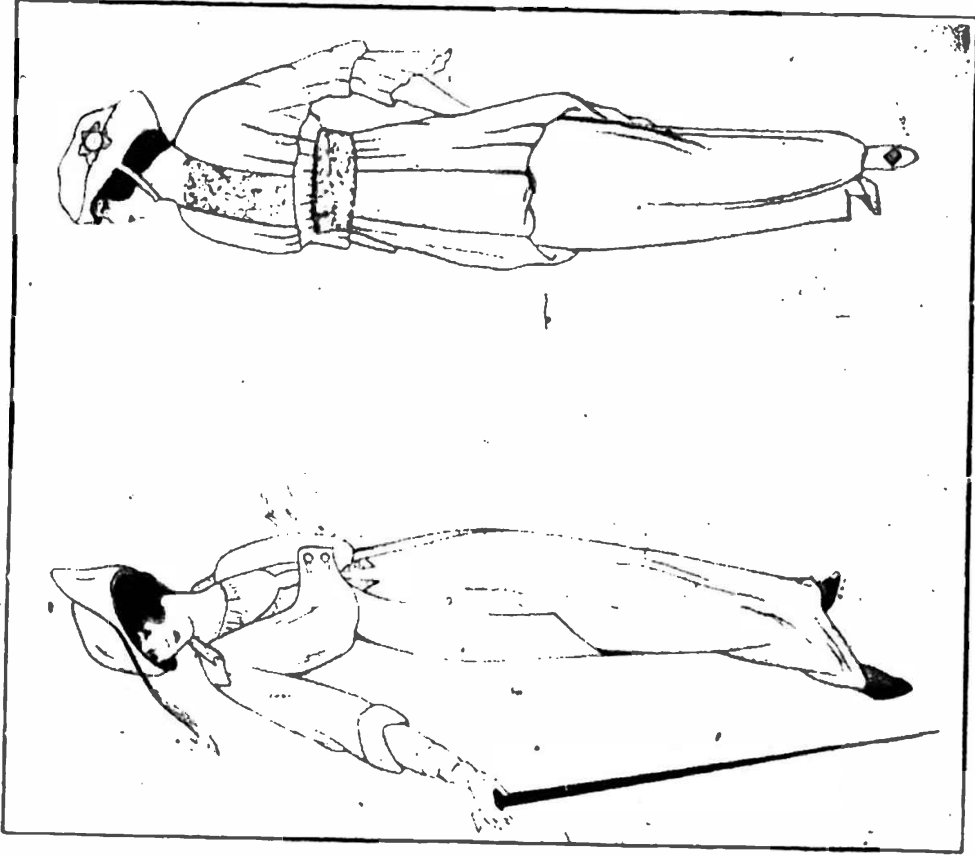
5. DESIGNED AND WOVEN BY STUDENTS IN THE EAST TECHNICAL HIGH SCHOOL, CLEVELAND.



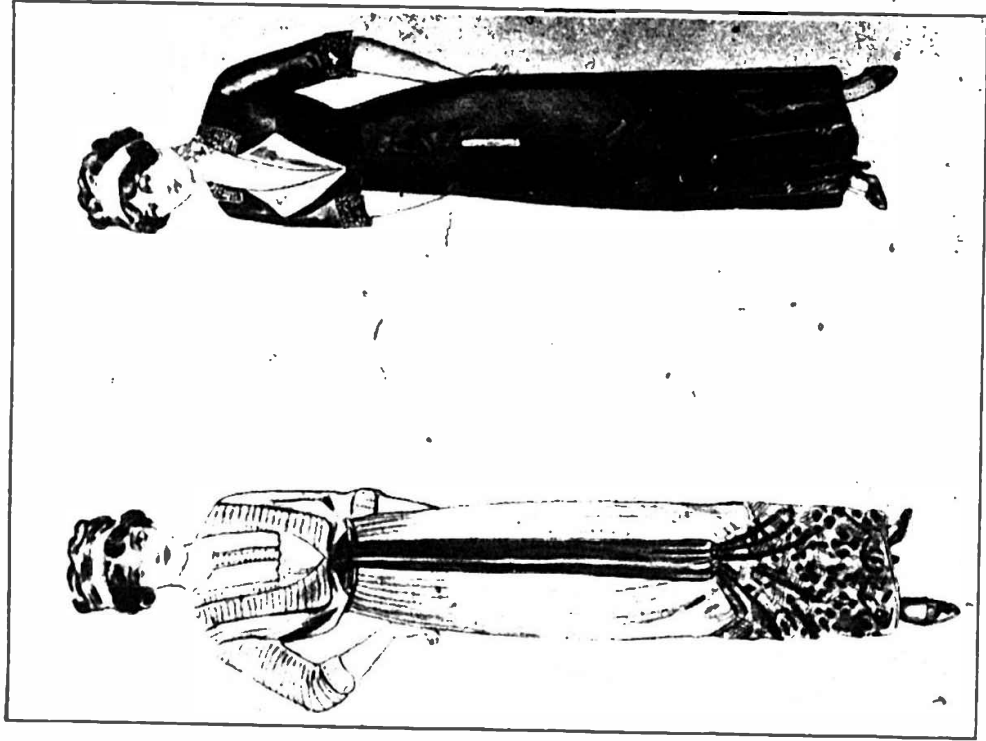
B. STENCILED CURTAIN, CENTRAL HIGH SCHOOL,  
SPRINGFIELD, MASS.



A. STENCILED DRESS, INDEPENDENT  
WORK OF PUPIL, CENTRAL HIGH  
SCHOOL, SPRINGFIELD, MASS.



A. COSTUME DESIGN IN BLACK AND WHITE, THIRD YEAR, WASHINGTON IRVING HIGH SCHOOL, NEW YORK.



B. COSTUME DESIGN IN COLOR, THIRD YEAR, WASHINGTON IRVING HIGH SCHOOL, NEW YORK.





A. DOMESTIC ART. WASHINGTON IRVING HIGH SCHOOL, NEW YORK CITY.



B. DOMESTIC ART. WASHINGTON IRVING HIGH SCHOOL, NEW YORK CITY.



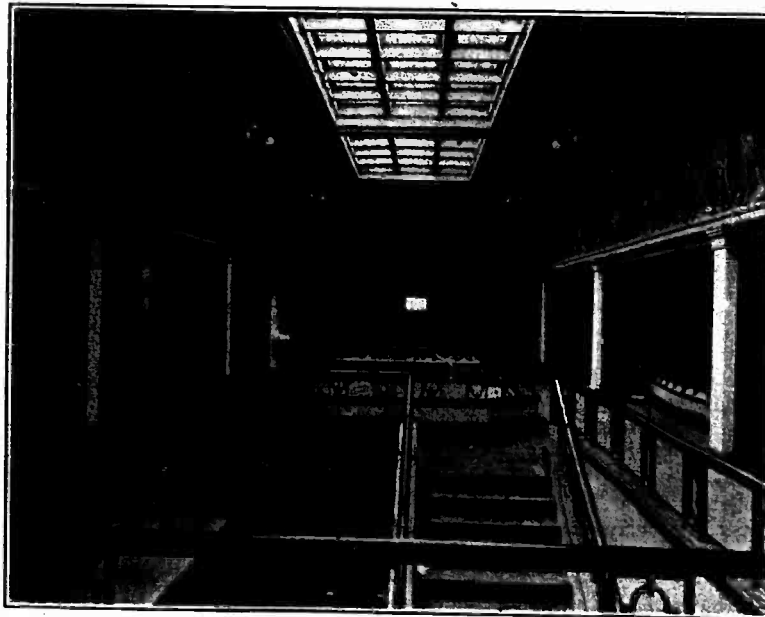
A. OUT-OF-DOOR SKETCHING CLASS. HIGH SCHOOL, NEWTON, MASS.



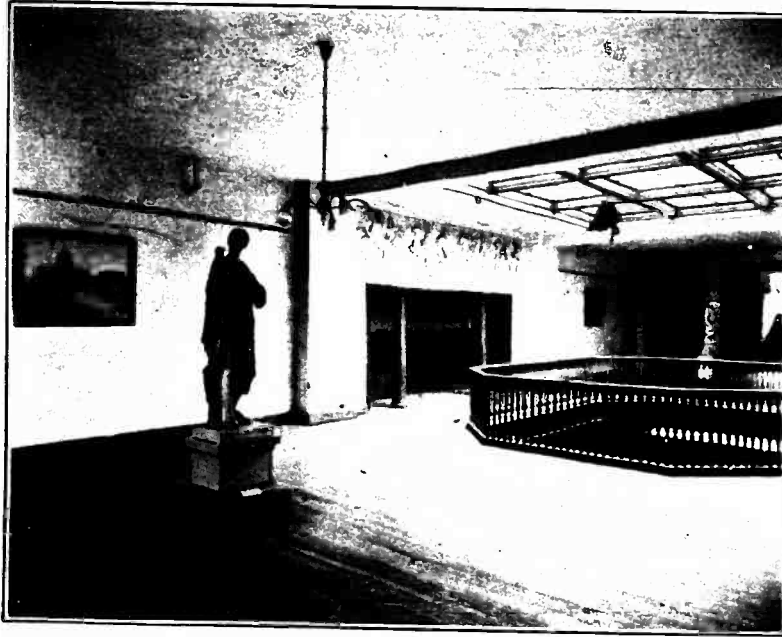
B. FIRST GRADE—DEVELOPMENT OF THE STORY OF THE KNIGHTS. PRIMARY MANUAL ARTS DEPARTMENT, LOCKWOOD STREET SCHOOL, LOS ANGELES.



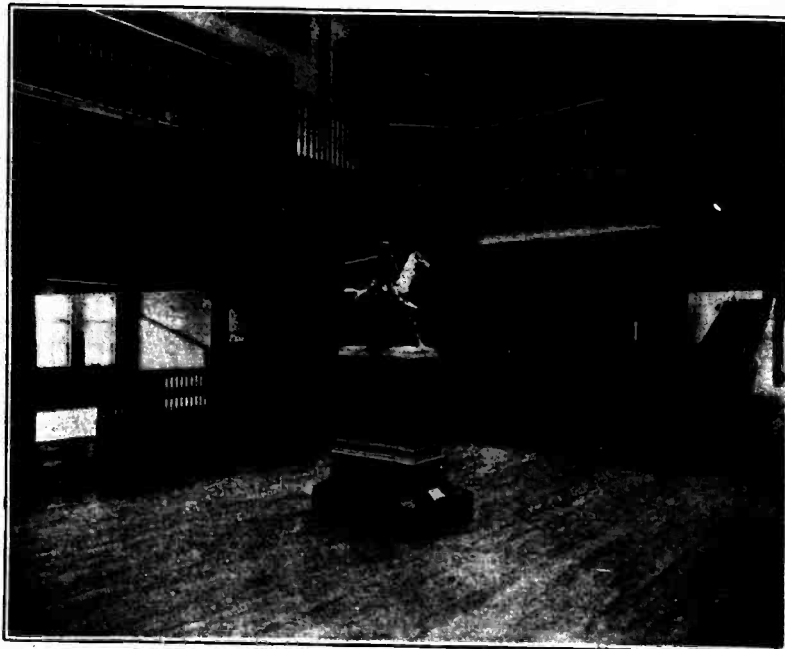
A. SCHOOL DECORATION. SCHOOL GROUNDS, HUDSON FALLS, N. Y.  
(Courtesy of University of State of New York.)



B. SCHOOL DECORATION. UPPER HALL, HIGH SCHOOL, LANSING, N. Y.  
(Courtesy of University of State of New York.)



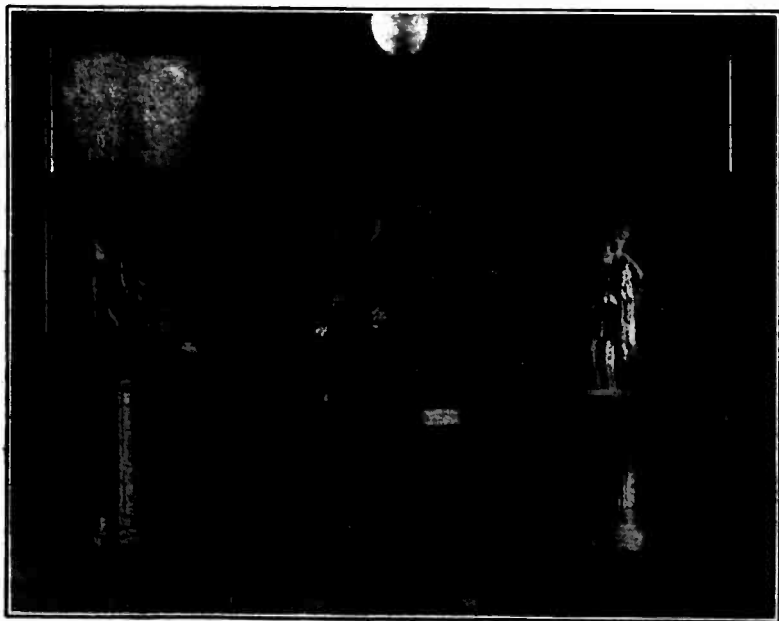
A. SCHOOL DECORATION. UPPER HALL, HIGH SCHOOL, ONEONTA, N. Y.  
(Courtesy of University of State of New York.)



B. SCHOOL DECORATION. LOWER HALL, HIGH SCHOOL, ONEONTA, N. Y.  
(Courtesy of University of State of New York.)



A. SCHOOL DECORATION. HIGH SCHOOL LOBBY, PLAINFIELD, N. J.



B. SCHOOL DECORATION. BRYANT SCHOOL AUDITORIUM, PLAINFIELD, N. J.



A. SCHOOL DECORATION. FRANKLIN SCHOOL AUDITORIUM, PLAINFIELD, N. J.



B. SCHOOL DECORATION. FRANKLIN SCHOOL AUDITORIUM, PLAINFIELD, N. J.



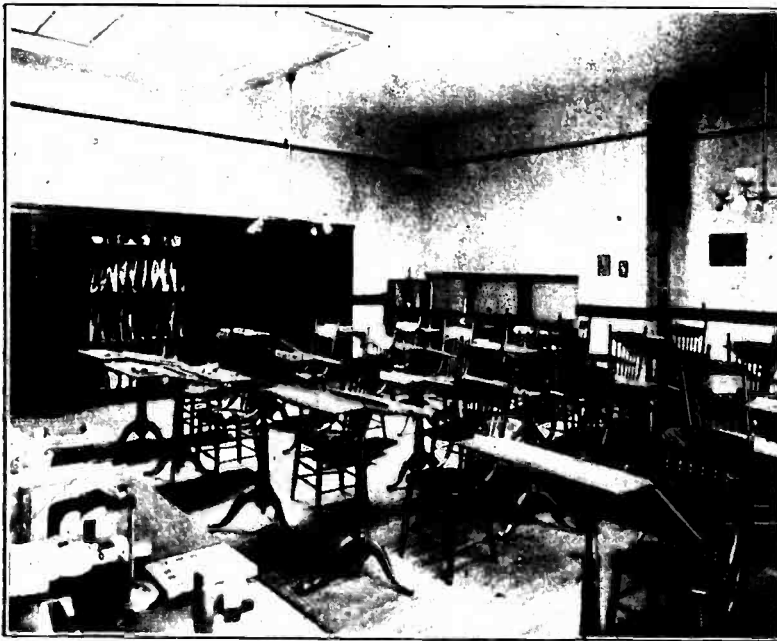
A. SCHOOL EQUIPMENT, FIRST GRADE, MANUAL TRAINING SCHOOL, NEW ORLEANS.



B. SCHOOL EQUIPMENT, DRAWING ROOM, NEW TRIER TOWNSHIP HIGH SCHOOL, KENILWORTH, ILL.



A. SCHOOL EQUIPMENT. THE STUDIOS. TECHNICAL HIGH SCHOOL, NEWTON, MASS.

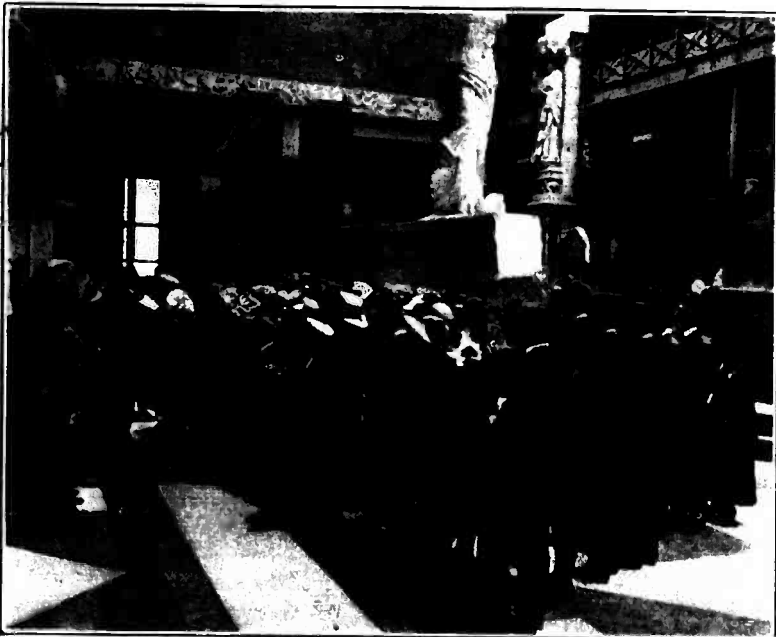


B. SCHOOL EQUIPMENT. DRAWING ROOM, HIGH SCHOOL, GLOVERSVILLE, N. Y.  
(Courtesy of the University of the State of New York.)



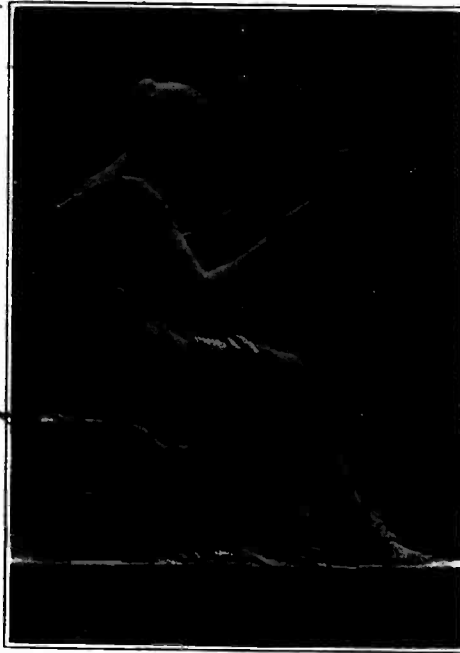


A. AN EXHIBITION OF WORK BY HIGH SCHOOL PUPILS HELD IN THE GALLERIES OF THE AMERICAN FINE ARTS BUILDING, NEW YORK. OF SPECIAL INTEREST FOR THE METHOD OF HANGING.

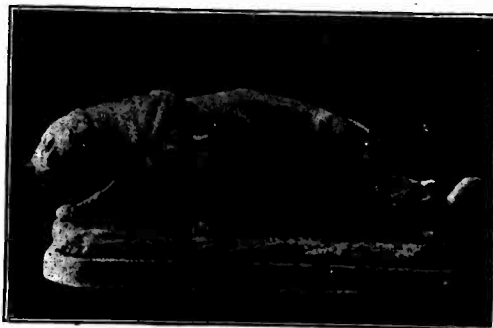


B. LECTURE TO HIGH SCHOOL STUDENTS AT THE METROPOLITAN MUSEUM, NEW YORK.

(From annual report (1912-13) of director for high schools.)



A. FINE CRAFTSMANSHIP MODEL. V. D. BRENNER, SC.  
Awarded semiannually to members of graduating classes in school workshops by the School Art League, New York.



B. JAGUAR. BY ELI HARVEY. SCHOOLROOM DECORATION.  
Placed by School Art League in public schools of New York City.