UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary
OFFICE OF EDUCATION
WILLIAM JOHN COOPER, Commissioner

GROUP ACTIVITIES FOR MENTALLY RETARDED CHILDREN

A SYMPOSIUM

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D.C., May 1933.

SIR: In every school system the education of mentally handicapped children presents serious problems. In the larger cities where such pupils may be gathered from the various classes in the school and placed in one room in charge of a specially prepared teacher, the problems are somewhat simplified. In the country schools where children cannot be so easily classified according to handicaps, or even according to grades, the problems become most serious. One of the chief difficulties in dealing with mentally retarded children, whether in urban or rural schools, comes from the lack of materials of instruction. During recent years the Office of Education has been giving some attention to this problem. The author of this bulletin, Dr. Elise H. Martens, has visited classes for exceptional children in a number of cities and States in which they are being successfully conducted, and, with the help of a number of teachers whose names appear in connection with the projects they have developed, has collected a number of fully tested group activities. They include activities concerned with community life in the home and in the city, the food market, child care, a project in manicuring for the older girls, a study of trees, a natural history museum, etc. The activities selected are those related closely to the life of the communities in which mentally exceptional children live and in which they must eventually find a place economically and socially. I consider the collection of group activities presented in this bulletin very suggestive of approved methods for educating children of limited mentality, and therefore respectfully recommend its publication as a bulletin of this Office.

Respectfully,

WM. JOHN COOPER,
Commissioner.

THE SECRETARY OF THE INTERIOR.

GROUP ACTIVITIES FOR MENTALLY RETARDED CHILDREN

INTRODUCTION

To those who interpret the school curriculum as a graded series of purposive experiences directly related to the interests and the needs of the child, a group of activities such as are described in the following pages will seem but the natural vehicle of instruction. Their significance and value in the education of mentally retarded children have long been recognized by teachers who have tried to make of classroom work a real experience in living, designed to bring about the greatest self-development of the child coupled with a constructive relationship between him and his environment. Indeed the very foundation upon which special classes for mentally retarded children have been built has involved recognition of the need for greater freedom in self-expressing activities on the part of the child and of the group of children. If the child of limited mentality is to become an adult who lives in his community with some measure of self-reliance and self-respect, then he must be given every opportunity for continuous practice of those qualities during his formative years. The group activity, in which each child may express some power of initiative, carry some responsibility of performance, and have some part in judging the merits of the outcome, offers a medium for such practice that the traditional recitation method of teaching reading, writing, and arithmetic could not approach.

Yet the possibilities of such a program are by no means universally recognized nor its principles universally applied. There are still many teachers of retarded children in special classes who think they are making adequate adjustment of the curriculum when they reduce academic work to its minimum essentials and allot a considerable portion of the day's program to manual work of one kind or another. They still carry on a program in which each subject fits into its own tight compartment. They realize and let the

children realize none of the joy that comes from tying together into one major activity all the elements which help to develop the skills and habits and attitudes that they are trying to teach. And many teachers who know that something ought to be done about it do not know how to proceed. The activity program is to them a desirable procedure, but an exceedingly difficult one to apply.

Yet, after all, the basic principles of curriculum construction for the mentally retarded child are no different from those which should characterize its development for average or even gifted children. Abundant literature on the subject of the activity program serves to show what these principles are. It is only the application to immediate needs and the adaptation to individual abilities which need special consideration. In order to show how these problems have been met for mentally retarded children in specific situations, this group of activities is offered for whatever suggestions they may bring to teachers who are eager for help in planning the programs of their own classrooms.

Because a special class for retarded pupils includes children of various age levels, sometimes representing a considerable range, it shows some similarity to the situation confronting the teacher in the rural school of one or two rooms. An activity suited to either one of these conditions can in most cases be modified without serious difficulty to fit the requirements of the other. The mental levels of the children in the rural school will show wider variability, but provision can be made for this by increasing the range of difficulty in the tasks undertaken. It is true that special classes are in most communities restricted as to size,[1] in order to make possible a great amount of individual assistance for each member; but in larger classes of average capacity this demand for continued individual help is not so urgent. Hence, while the activities described in this bulletin have actually been carried on in special classes for mentally retarded children, there is no reason why they should not be adapted by teachers of mixed classes or ungraded classes in certain localities. In every case the responsibilities and achievements of the

[1] Since the accounts of these group activities were compiled, noticeable increases in the size of special classes have been made in many localities, due to the inauguration of economy programs.

pupils will be dependent upon individual differences in age, in capacity, and in interests.

The activities presented are the contributions of teachers of special classes for mentally retarded children in various parts of the country. Some of them were specifically planned for primary groups, others were carried on by older and more advanced pupils, while still others were the work of mixed groups composed of both younger and older children. The contributions were made in response to an invitation sent out by the United States Office of Education to some 50 cities in which it was thought the activity program was in progress. Since more than 200 manuscripts were sent in, there arose obviously the problem of selecting representative ones for publication. Because it was possible to print only a very small number of the contributions made, not more than one complete activity was used from any one city, even though others might have been included that were equally good. So also only a limited number of cities could be represented, although others submitted material that was exceedingly worth while.

The final selection of activities to be printed was made with the desire of showing a representative sampling of subject matter, of types and ages of children, and of geographical location of cities. The child's immediate environment—the home and the community—constitutes the subject matter of the first activity described, giving abundant opportunity to emphasize the privileges and the responsibilities that are his in connection with these agencies. The production and preparation of foods, child care, home and school beautification (as these are discussed in succeeding projects) are vital elements in the development of this general theme. Then we dip into the fields of social studies, natural science, music, literature, and vocational preparation, each one of which is important in the education of the whole child.

Some of the activities have been described in greater detail than others. Some are major units covering a full semester, or large part thereof, and provide for a complete integration of all school experiences. Others are designed for shorter periods of time or are more limited in their opportunities for coordination of subject matter. But all of them represent

activities closely linking the work of the classroom with out-of-school situations. Probably no teacher will wish to follow any one of them verbatim; she will wish rather to use them for their suggestive value and adapt them to her own environment, working out in detail many of the items that have been here only briefly sketched. In many cases special bibliographical material has been furnished by the author and will be helpful to the teacher who would work along similar lines.

It is regretted that all of the excellent contributions made cannot at this time be issued in printed form. However, in order to make so much valuable material accessible to those desiring to refer to it, much of that which is not being printed will be gathered together in typed form into a circulating loan-book, which will be available upon request to any individual for a stated period of time. To those who have through their contributions made possible this bulletin and the loan-book which will follow in its wake, we express our grateful appreciation. The interchange of ideas and experiences in the education of mentally retarded children constitutes one of the primary means of helping us to bring our practices to ever higher levels.—E. H. M.

I. COMMUNITY LIFE

A. THE HOME

By ELIZABETH WERNER, *Minneapolis, Minn.*

[NOTE.—The building of a playhouse is an age-old activity for primary grades, and one which every teacher can adapt to her own environment. So also the study of "our city" (or town or village) is of immediate concern to every group of children. These two activities together represent a complete unit on community life which offers great possibilities in practically any situation in which the teacher finds herself.]

This activity on the home found its origin in the unusual amount of interest shown by the children in the construction of a house not far from the school. From day to day they noted the progress made in the building, beginning with the steam shovel digging the basement, continuing throughout the erection of the structure of the house, the addition of the walls and roof, and finally the finishing processes. Thus, for some time previous to the actual initiation of our project, the children showed great enthusiasm in this type of work. Consequent observations and comparisons with their own homes were encouraged, and finally the incident was seized upon as the crucial moment in which to develop a plan of work embodying all the various phases of our school activities under the guise of real life situations.

From the general discussion, admittedly directed, we found many things pertaining to homes which we were anxious to learn about, and these in turn became our objectives, the chief of which were the following:

1. To have a knowledge of the different types of homes.
2. To know the importance of cleanliness and beauty in the home.
3. To have some appreciation of the relationships, duties, and responsibilities of persons in the home.
4. To have some idea of the cost of construction and maintenance of a home.

The group of children participating in this activity numbered 10 boys and 5 girls—the enrollment of a special class (preprimer through the third grade) in an elementary school. The entire group with the exception of perhaps two children came from the lower grade of middle-class homes, their fathers for the most part being laborers—many of them out of work.

These 15 children were divided into four separate groups—preprimer, primer, second grade, and third grade—according to their abilities, as indicated by the list given below. While the activities of all the groups were closely interrelated, each group worked independently of the others, the only exception being in the construction of the playhouse itself, in which every member of the class had a part.

	C.A.	*I.Q.*
Group I, third-grade level:		
Bonita	13	78
Gene	12	78
Robert	13	73
Group II, second-grade level:		
Herbert	9	79
Donald	16	52
Russell S	9	80
Miriam	11	70
Group III, primer level:		
Ernest	10	75
Russel K	9	71
Maxine	9	77
Group IV, preprimer level:		
Leola	9	68
Margaret	9	70
Douglas	7	78
Bobby	8	67
Warren	9	58

One morning some of the children talking together suggested that it would be fun to build a house of our own. This led to a spirited discussion of ways and means. Before beginning the project, however, we felt it was necessary to decide what was the best kind of a house for us to build. With this in mind we took a walk to observe different types of homes in our community, and also a walk to a nearby lumber yard to inquire about building materials. Returning to school we discussed these trips at some length and made notes. Some of the children brought pictures and posters of homes, home interiors, and family life about which we

also had many interesting conversations. All of this helped to maintain to a high degree the interest in the work.

We received valuable cooperation from the parents, who allowed the children to bring to school toy furniture and many other articles; also from the local storekeepers, who were very kind in furnishing us an extensive supply of boxes which we used in making tables, chairs, cupboards, window boxes, and even the chimney on our playhouse.

All the various phases of our regular school work were carried on hand in hand with our progress in the erection of the playhouse; and while much the same in content for the whole class, the activities were, as has been indicated, divided into four groups commensurate with the different grade levels.

Reading.—The reading material for the lower groups consisted almost entirely of original stories based on the actual activities of the day before, with the addition of simple stories about home, such as The Three Pigs, The Three Bears, The Wee Wee Woman, etc. These stories were printed on the board and on charts, and were typewritten to be pasted in each child's "home book." The seat activities to accompany this work included making the home books, matching words and phrases, cutting pictures, cutting words such as door, window, etc., from magazines, and drawing pictures according to simple directions printed on the blackboard.

The reading material of the older groups included selected stories about home life taken from different readers, original accounts of our trips, notes we had taken, descriptions of various homes, language stories, and the reading of plans and blueprints. A great deal of work-type reading was introduced in the seat activities, which included informational reading, following written directions, making house plans, planning home interiors, etc. Achievement cards in reading were planned for the entire class as a check on the reading activities and these acted as a definite motivation in securing good results. Each card bore the child's name and was marked into groups of five squares representing the five school days. Every day three marks were entered in the proper square, indicating in turn the grades obtained in attention, seat activity, and the actual reading lesson. A

perfect lesson merited a silver star. On Friday of each week the child having the highest average for his particular group was given a gold star.

Arithmetic.—The number work for the lower group was chiefly incidental, but included an acquaintance with the ruler and tape measure. For the older groups were added problems involving concrete applications in counting and the four fundamental processes, as well as problems concerned with the costs of the construction, furnishing, and maintenance of a home. These problems were made up in groups of 20, were typewritten and mounted on separate cards numbered consecutively. To be used with the cards, a large chart was made bearing each child's name with 20 numbered spaces after it. Whenever a child solved one of the problems correctly and unaided, he pasted a silver star in the space corresponding with the number of his card. If he had to have help with the problem, he marked the space "O.K" when his work was completed.

Language.—The work in language for the lower groups was for the most part made up of dramatizations, such as playing house, and of discussions of the work being done on the house. The work for the older groups included some original poems, many oral and written discussions of experiences and observations, as well as the writing of letters, descriptions of homes and home interiors, and reports of work done.

Writing, spelling, music.—The writing and spelling materials used in connection with the unit were entirely incidental. So also was the music, which consisted of the singing of songs pertaining to home and family life which happened to fit the particular part of the project on which we were working.

Manual activities.—The art work presented an unusual opportunity for the children to display their originality. Aside from drawing, which included work at the easel and with crayon, illustrating simple stories about home life, the children contributed many original designs which were used in making wall paper, in stenciling curtains and pillows, and in producing various other decorations for the playhouse. They also planned color schemes for different rooms, designed covers for their home books, and made many free-hand posters depicting furniture and various household objects. All the related handwork hinged directly upon the progress made in

the construction of the playhouse, in which each child had a part. There were enough activities to permit every boy and girl to choose, after some experimentation, which phase of the work he wanted to pursue, and thus to add his contribution to the unit. The class was divided into woodworking, sewing, and painting committees. At the end of each industrial period a brief report was given of the work accomplished and plans for the next day were made. To safeguard any waste of time, the chairman of each committee was held responsible for seeing that every member of his group was kept busy at his assigned task.

Following is a list of some of the things accomplished by the committees besides the building of the playhouse itself:

Woodworking committee.—Made and painted furniture for playhouse: Table, arm chair, straight chair, cupboard, doll bed, lamp, window boxes.

Painting committee.—Made wall paper, lamp shade, awnings for windows.

Sewing committee.—Made bedding for doll bed, curtains for playhouse, pillows, lunch cloths and napkins, table scarf, and clothes for baby doll.

By the time the playhouse was completed the children had gained many ideas which they were able to carry out in their own homes. This was evidenced by the instances cited in which the girls had arranged their rooms to look "prettier", and the boys had put up some handy shelf to help mother, etc.

The significant values of the project, aside from the actual knowledge obtained in fundamentals, involved (1) an appreciation of the relationships and responsibilities in the home; (2) an appreciation of the cost of constructing and maintaining a home; (3) a development of desirable habits and attitudes. The children learned to work well together and to appreciate the advantages of cooperative effort. They gained a sense of carefulness and accuracy made necessary by the nature of the work they were doing. They developed the ability to express themselves clearly and to give and take directions. They learned the value of planning their work carefully and of using books and other materials to help them in making their plans. Their initiative was constantly challenged by the need of experimentation in new fields. An ample variety of work with due progression provided for the

individual differences of the children in the various groups. They found themselves very happy in being able to accomplish unexpected things in the wide field of self-expression which their chosen work and its resulting benefits presented to them.

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(Helping Mother; My Busy Mother; When Daddy Comes Home)

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B. OUR CITY

By MARY LAUGHLIN, *Minneapolis, Minn.*

The contribution which our city makes to its citizens formed the basis for a unit of study in our special class, which is a single class in an elementary school. Interest was first aroused by a visit to the book exhibit at the public library. When the children returned from the library, very enthusiastic about the beautiful display of books they had seen, they were asked what other agencies are provided by the city to aid its populace in living a happy, wholesome life. As a result, we had an outline for our activity.

Our class is made up entirely of children of foreign descent, principally Polish. Four come from homes where English is seldom spoken. All come from families where the standard of living is exceptionally low, seven of them depending entirely upon the city for financial support.

The wide variation of mental ages, intelligence quotients, and general ability made it necessary to divide the group into three divisions. This grouping may be more readily understood from the following table:

Pupil	Sex	Grade level in achievement tests	C.A.	I.Q.	Time spent in special class
GROUP I (INTERMEDIATE)					
A	F	5B	13-4	78	6 mos.
B	F	5B	11-6	80	6 mos.
C	M	5B	13-4	78	2 yrs.
GROUP II (PRIMARY)					
D	M	3B	13	74	4 mos.
E	M	3B	12-5	78	1 yr., 4 mos.
F	M	2A	12	69	1 yr., 4 mos.
G	M	2A	10-5	74	4 mos.
GROUP III (PRIMARY)					
H	M	2A	8-0	80	6 mos.
I	F	1A	12-6	56	3 yrs.
J	M	1B	10-6	69	3 yrs.
K	M	1A	12-4	54	1 yr.
L	M	1A	9-5	71	1 yr.
M	M	1B	8-10	78	1 yr., 6 mos.
N	M	1B	9-0	72	1 yr., 6 mos.
O	M	1B	9-0	65	1 yr., 6 mos.

The teacher's principal reasons for encouraging this activity were (1) to assist the child to develop a knowledge of the services offered by the locality in which he resides and to understand those rendered by the city at large; (2) to teach him to whom he should go for guidance; (3) to develop in him an interest in the civic affairs of his city; (4) to assist him in discovering the facilities his city offers for wholesome leisure activities; (5) to help him formulate habits of wise and effective citizenship and group cooperation.

The activity was divided into four types of interests—namely, local commercial, city-wide commercial, municipal, and social. Under local commercial interests, we studied the bakery, grocery, meat market, and drug store. City-wide interests included the creamery, some of the important manufacturing centers of our city, the public market, banks, and hotels. The municipal interests embraced the postal service, the police and fire departments, the public library, the street car company, and the city hall. Social interests centered about the parks, playgrounds, and settlement houses of our city. Excursions were made to each center included in the last two mentioned groups, and in each case a representative explained the organization, value, and functions of his particular division.

This activity furnished excellent opportunity for correlation of subject matter with the center of interest. Examples of such correlation follow:

Reading.—We read stories from New Stories, The Child Story Reader, Jip and the Fireman, Mary and the Policeman, and The Postman. We also read clippings from library references about community life as well as the stories which the children wrote about their excursions.

Language.—During the language period, the children wrote stories of excursions made and brief synopses of library books read during the recreational reading period. The book reviews were classified under the headings of animal stories, stories of boys and girls, fairy stories, hero stories, stories of foreign children, stories about toys and dolls, and adventure stories. Appropriate book covers were made for each group, and the book reviews were copied and placed in these books under the correct title. The books were put into a book house and used to help furnish the library.

Three books of original stories, bound with attractive covers, were presented to the Shriner's Hospital for Crippled Children, located in Minneapolis.

Arithmetic.—Arithmetic problems based on the post office, scales for maps and charts, and measurements for related hand work activities furnished ample opportunity for work with numbers.

Hand work.—During the art period, the children made friezes showing the activities of the postal department, the fire department, and the police department. Posters of winter and summer sports were also made and used to make the classroom more attractive. Group III made a movie telling the story of a letter from the time it is written until it reaches the person to whom it is addressed. Group I made a very interesting frieze depicting the various stages of mail transportation.

Social studies.—The social-studies period was used for a variety of interesting outgrowths. Group I made a large map of the community, locating the school, the nearest branch library, the post-office branch, the fire and police stations, the local settlement house, and the home of each child in the room. A chart was made showing the division of the Minneapolis tax dollar. Group II made a modern playground in miniature form on the sand table. This group also supervised much of the work done by Group III.

Under such conditions of cooperation, large wooden blocks were used to construct models of the police and fire stations, the post office, the school, the settlement house, and several varieties of stores and shops. Emphasis was placed upon the post office, and all postal activities were represented. Packages were wrapped, weighed, and properly stamped. We often wrote letters to be taken home which our classroom postman and his sorters had to stamp and cancel before they could be delivered.

The most elaborate phase of the activity consisted of building a library. A corner of the classroom was partitioned off by the children. We purchased two large pieces of compo board, 18 feet long and 6 feet high. Our most capable boy cut windows and a door, fastened the partition to the wall by means of braces, and put a molding on the top and bottom

to make the structure secure. The interior walls were stippled in the orchid and green color scheme which was used throughout the library. The outer walls were painted a solid green. All the furniture used in the library was made by members of the class. Unusual cooperation was shown in the finishing and assembling of the furniture. Even the most unskilled members of the group were proud to be able to help the more capable pupils sandpaper and assemble the material which was to become furniture for the library.

Children from every room in our building brought books for the library. Group I spent an afternoon with our branch librarian, then returned and cataloged and classified the books in keeping with the system used in the public library. A student was appointed each week to act as librarian.

Throughout the 8 weeks of study spent on this activity, interest and enthusiasm were very evident. There was an attitude of inquiry and investigation which yielded excellent results during the entire time.

The real joy of the situation, however, came in the children's use of the library after its completion. Class work was often taken there for study and discussion. The children were frequently found at the benches absorbed in some book or magazine. Weeks after the activity was completed, the same interest was evident. There was always a feeling of pride in this completed unit of work, and each individual child felt the joy of having achieved something very worth while.

In reviewing this unit of work, it seems that it was successful because of the children's interest in the subject and because information and cooperation were easy to secure. Planning offered not too many difficulties but challenged the initiative of the more competent pupils. The construction of the library was easy enough so that all could participate, yet sufficiently difficult to call forth maximum effort for the more skilled individuals. The finished piece of work was one of which all could be proud. The library was large enough to live in, make use of, and enjoy. It provided a social atmosphere which was most valuable.

If one adds to these factors the information which came to the children, their appreciation of community and civic

activities, and the influence on their habits and ideals which resulted from this study, there can be no doubt that it was a worth-while activity for all concerned.

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II. THE FOOD MARKET

By ELIZABETH KELLY, *Newark, N.J.*

[NOTE.—Playing store is a common enough project in elementary grades. How it can be used with mentally retarded children to motivate the whole class program in coordinated activities that call into play every subject of the curriculum is told here in detail.]

THE SCHOOL AND THE COMMUNITY

The type of school in which this unit was worked out is primarily for the younger children, having a kindergarten, grades 1 to 4, and three classes for mentally retarded children. The total enrollment is 1,600, and the teachers number 45 with a vice principal in charge. The pupils on completion of the primary grades pass to an adjoining building which houses the grammar grades. The conditions in this district speak very loudly of poverty. Hence indefatigable efforts are carried on to improve individual health, nutrition, cleanliness, and social conditions in the homes. A school attendance of 100 percent is usually the order of the day, unless illness intervenes. All forces work together toward one goal, that of good for the child.

Most of the people in this community are foreign. On the whole the rate of mental retardation is very high. Here only the meager things of life are afforded and the provision of basal necessities with which to live is the chief interest of the group. The acquisition of food to eat, quarters to live in, and covering for the body, punctuated with an occasional or a frequent "movie", engrosses their attention.

Debasing agencies seek to absorb the youth in their early teens. Those that are unfortunately absorbed assume the braggadocian air of the lawless "adolescent strutter" and this carriage is soon reflected in those of tender years. The home that consists of four bare walls drives its younger occupants out into roads that are devious, seeking for excitement. The illegitimate thrill that is initially felt is but the first of many

that take on expandingly, and the accompanying language that attends the big thrills includes such expressions as "burned", "put on the spot", "take the rap", "bulls", "racket", "hijack", and endless others. All this the school must contend with and the conflict with education and gangland is sharp, the former striving to be paramount through a wave of interesting features and the latter seeking supremacy by a snare of adventurous, get-rich-quick banditry.

The class

Name	C.A.	M.A.	I.Q.	Name	C.A.	M.A.	I.Q.
Vincent	9	5-10	65	Louis	11-5	6-6	57
Carmine	10	6-6	65	Frank	10-2	6-4	62
Salvatore	10-1	7	69	Albert	9-6	6-4	67
Lucy	10-6	6	56	Lucy	10-11	6	55
Howard	9-2	6-10	75	Dominic	9-10	6-6	66
Florence	10	6	60	Joseph	10-6	7-2	68
Victor	11-1	6-6	59	Jennie	10-1	6-10	68
Mabel	8-4	6	72	Vito	10-10	7	65
Thomas	9-1	6-6	72	Ida	9-4	6-10	73
Jerry	9-8	6-2	64	Ormando	9-6	6	63

The classes for the mentally retarded cull their members from the primary grades. Their sojourn in those grades may have been short or long depending principally on the vacancies occurring in the special class. Because of their inability to compete with their classmates in the regular grade, any type of delinquent tendency may develop. Because of the struggle in each to compensate for his individual deficiencies, there is revolt. Upon being transplanted from a faster-moving group to one traveling at his own speed the child enjoys all the embellishments of the regular group in ease and contentment. Though the program may have to be adjusted and a longer period required for its accomplishment, the desirable points that a properly worked unit may afford will be absorbed.

SELECTION AND BEGINNING OF THE ACTIVITY

Since real learning involves the selection of a unit, all parts of which "will draw upon all phases of experiences and make use of all kinds of subject matter", I selected the food market with accompanying smaller enterprises as the hub for my center of interest.

Since in this locality the acquisition of food is regarded as one of the most important problems of life, and since malnutrition is a ghost that stalks here, a cursory study of the home and of the manner in which food is secured, together with the nutritive value of food, stimulated a trip to the market.

Going to the store for mother or a neighbor constitutes a large portion of the normal life activity of the child. Yet, though he may go countless times, the sort of stock carried by the storekeeper will never be known to him outside of the particular article he has been requested to secure. After a class trip to the market, the children were fired with the desire to have their own store, so, with much discussion as to how the stock might be secured, it was decided to start with a grocery store. When we set out to make some of our own stock for the store the perplexity that followed brought forth the suggestion that we secure additional dummy stock from the wholesale grocers. Immediately the clamor to get what we needed as soon as possible led to letter-writing for free supplies. That done, the discussion fell to the erection of our store. This was finally accomplished by committees and subcommittees, and with the arrival of our shipment of goods we were soon ready for business. With the play store stocked, the vista of the child took on broadening proportions, and the eye encompassed a spread that made him alert to the brand, price, and variety of groceries carried by the grocer.

DEVELOPMENT OF THE ACTIVITY

Playing store disclosed hidden aptitudes in the children. In play the children are most revealing, natural, and sincere. The "feel of doing" brings out the assertiveness in the child, and an opportunity for the exercise of individual talents holds sway. One child is an able administrator of the whole project, another surprises one with his genial manner in selling groceries, a third has ideas about the best site for the erection of our store, a fourth is almost penurious in the handling of the cash, and a fifth takes over the business of advertising. Each of the five selects helpers, and business is conducted under high-pressure methods. All are serious and playing hard. This is the procedure for all the succeeding enterprises, such as the fruit and vegetable market,

the fish market, and the meat market. As a summation of these food sales of various types, a luncheon program serves as the finale. This was motivated by the desire of the children to taste some of the food that they had never experienced eating before. It made the experience with food very real and lifelike. Carrying out these desires necessitated the making of a table, which was done easily with ordinary boards. Chairs were made from orange boxes, the linen of paper, the plates, cups and saucers, and tools for eating from cardboard. Aprons for the cooks and waitresses were made from unbleached muslin. A hostess and a host were selected by the children and, besides learning what food made a balanced menu with knowledge of the nutrition it gave, the children were given the opportunity to learn the correct forms of setting a table, of eating, of serving, and of guest placement.

With the unit well on its way to perfection, there is afforded time in which the children may demonstrate with their "brain child" to others in the school. Through the invitation to other classes to visit the market, there is opportunity for the mentally retarded to find their place in the sun that will automatically demand respect and admiration from their normal brothers. This increases respect for themselves, causes others to respect them, and slowly and quickly dispels that air of being insufficient, so strongly felt by the mentally retarded. In the embracing of life activities by all children the mass of children as a whole tend to become more like one another and then again more unlike, since the "dunce" of other days competes favorably with his "smart" brothers in at least some capacities that all are alike in embracing.

RECORD OF ACTIVITY CENTERING AROUND THE UNIT

A. Objectives

1. To arouse a desire and an interest in group activities and a readiness to participate in them to the end of fulfilling individual responsibility as a member of the group.
2. To direct desirable interests, aptitudes, and abilities into productive and creative channels.

3. To develop an opportunity for self-expression.
4. To realize our dependency on the community for foods.
5. To develop specific health habits that pertain to cleanliness and eating.
6. To provide a list of foods and their values.
7. To develop an appreciation of the health problems of the group.
8. To give children the opportunity to talk readily and freely of home and community.
9. To develop originality, initiative, and constructive abilities in planning and furnishing a food market.
10. To develop social, moral, and intellectual habits and aptitudes through experience.
11. To lead the child to an appreciation that his needs for food are met by the home and society.
12. To utilize the child's environment.
13. To discuss informally:
    (*a*) What the family should eat.
    (*b*) Why one should eat certain foods.
    (*c*) How food should be taken care of.
    (*d*) How the food is distributed to the family.
    (*e*) How food is cooked in the family.
    (*f*) Source of food.
    (*g*) How food is served and eaten.
14. To cultivate the habit of critical thinking.
15. To help the child to appreciate and employ worth-while activities.
16. To develop through guidance worthy social attitudes and behavior.

B. Activities

1. Approach:
    (*a*) Discussion of where mother buys food.
    (*b*) Trip to market (a composite of all types of food stores):
        (1) Observing how the market is arranged.
        (2) Observing what is for sale.
        (3) Observing the storekeeper.
        (4) Inquiring how the food is bought at the market—cash and carry methods.
        (5) Observing the lunchroom at the market.
2. Initiation of the unit:
    (*a*) Discussing the trip.
    (*b*) Making plans to erect market.
    (*c*) Deciding where to place it in the room.
    (*d*) Recalling the different departments in the market.
    (*e*) Deciding on what stock is to be made.
    (*f*) Planning the responsibility of each child in erecting the stands.
    (*g*) Selecting materials and tools to be used.
    (*h*) Recalling the set-up of tables in the lunch room.

3. Manual activities:
   (*a*) Erecting the store:
      (1) Grocery stand.
      (2) Vegetable and fruit stand.
      (3) Meat and fish stand.
      (4) Bake shop.
      (5) Luncheon table, chairs, etc.
   (*b*) Acquiring goods to sell:
      (1) Molding from clay—vegetables, fruits, meat, rolls, and cakes.[1]
      (2) Shellacking and painting them.
      (3) Sending to grocery houses for dummy goods.
      (4) Making paper bags.
      (5) Printing signs and labels.
      (6) Making shopping bags and purses.
      (7) Making aprons for store keepers, cooks, and waitresses.
      (8) Making a delivery wagon.
      (9) Making table cloth, paper plates, napkins, and cardboard tools.
4. Correlated activities:
   (*a*) Reading:
      (1) Reading from the chart a record of the work done in the activities.
      (2) Signs, labels, prices in the store.
      (3) Progress as set forth in the daily newspaper of the class.
      (4) Directions as to individual work to be done.
      (5) Luncheon menu.
   (*b*) Language:
      (1) Stories developed from excursions.
      (2) Discussion of problems.
      (3) Dramatization.
      (4) Conversation between clerk and customer.
      (5) Making a sale.
      (6) Conversation between host, hostess, and guests.
   (*c*) Literature: Reading material in library pertaining to the store.
   (*d*) Writing:
      (1) Simple orders.
      (2) Simple bills.
      (3) Simple receipts for bills.
      (4) Menus.

[1] In order to keep a permanent supply of goods on hand during the course of the activity, it seemed necessary to model likenesses of these articles. Pedagogically it would be of greater value to handle the real products.

4. Correlated activities—Continued.
   (e) Number:
      (1) Addition and subtraction in giving change for money tendered for goods bought.
      (2) Counting number of cans and packages in the store.
      (3) Counting places to be set at luncheon with regulation set-up.
   (f) Music: Paraphrasing a standard song with words suitable for use in the project.
   (g) Art:
      (1) Making signs to advertise stock.
      (2) Making attractive food booklets.
      (3) Arranging cans and packages in the store attractively.
      (4) Making hectograph sheets for supplementary work material.
      (5) Coloring tablecloth, napkins, plates, etc., with simple design.
   (h) Physical training: A pantomime in conjunction with a song.
   (i) Nature:
      (1) Observation of common fruits and vegetables.
      (2) Learning the names and factors of growth.
   (j) Health. Discussion of—
      (1) How the grocer keeps food clean and fresh.
      (2) Why there should be care in the handling of food.
      (3) How to recognize the best foods for health.
      (4) How to make charts of all types of foods that are rich in vitamins.
      (5) How to regulate the temperature of refrigerator to insure freshness.

C. Outcomes

1. Outcomes from the entire unit:
   (a) Attitudes:
      (1) Appreciation of the part that the storekeeper plays in the community.
      (2) Appreciation of the rights and efforts of others.
      (3) Appreciation of the results that attend close cooperation in work.
      (4) A desire to work.
      (5) A desire to know people and things.
   (b) Habits and skills—Expansion and broadening of such desirable traits as:
      (1) Application to work.
      (2) Critical analysis.
      (3) Self-discipline.
      (4) Attention to hygienic principles.
      (5) Politeness.

1. Outcomes from the entire unit—Continued.
   (c) Knowledges:
      (1) Recognition of foods that comprise a well-balanced meal.
      (2) Appreciation of dependence of the community upon its stores.
      (3) A better understanding of the responsibilities of the storekeeper.
      (4) A better idea of what can be purchased at the store.
      (5) An appreciation of how money can be used.
2. Outcomes in:
   (a) Reading:
      (1) Ability to read silently understandingly.
      (2) Knowledge of words connected with activities.
      (3) Reading of class news.
      (4) Ability to associate word with picture.
      (5) Ability to follow printed directions.
      (6) Ability to read stories connected with food.
   (b) Language:
      (1) Ability to express ideas in short, clear sentences for story booklet and newspaper.
      (2) Ability to write clear sentences.
      (3) Ability to use capitalizations and punctuations as needed in written sentences.
      (4) Ability to dramatize.
      (5) Knowledge of new terms and their meanings.
      (6) Ability to express thoughts in a social group.
      (7) Ability to use the English language correctly.
   (c) Literature:
      (1) Appreciation of good literature.
      (2) Enjoyment of rhythm in musical sentences and lines of poetry.
      (3) Repetition of verse in a manner to bring joy to listeners.
      (4) Cultivation of the habit of applying one's self attentively in listening.
   (d) Writing:
      (1) Ability to write simple words and numbers necessary to carry on the activity.
      (2) Habits of neatness and care in use of paper and movement in writing.
   (e) Number:
      (1) Ability to count materials and money.
      (2) Ability in use of scale, such as ruler in measuring inch or foot.
      (3) Ability to add figures on a bill and to make change.
      (4) Recognition of value of money.
      (5) Ability to add automatically any two numbers included in the 45 combinations.

2. Outcomes in—Continued.
   (e) Number—Continued.
      (6) Ability to subtract automatically any situation in the 45 combinations.
      (7) Knowledge of arrangement of table; as top, right, left, etc.
      (8) Recognition of square and circle.
      (9) Recognition of a number containing symbols and figures.
      (10) Appreciation of significance of terms such as *small, large, heavy, light, long, slender, thin.*
      (11) Appreciation of the idea of measure, as *dozen, half-dozen, quart, peck,* and *pound.*
   (f) Music:
      (1) Ability to enjoy and sing songs related to the unit of work.
      (2) Ability of class as a whole to sing softly and with good, true qualities.
      (3) Ability to make songs.
   (g) Manual arts:
      (1) Skill in manipulating tools and materials.
      (2) Habit of economy in use of materials.
      (3) Carefulness and order in care of materials.
      (4) Ability to select proper colors.
      (5) Ability to make original drawings, paintings, modelings, cuttings of illustrations related to unit of work.
      (6) Appreciation of pictures.
      (7) Ability to mix water colors.
      (8) Habit of observation, with ability to recognise significant difference in form.
      (9) Recognition of individual responsibility in caring for tools and materials.
      (10) Ability to make simple, attractive place cards with names of guests.
   (h) Physical training:
      (1) Spirit of good sportsmanship.
      (2) Contentment and satisfaction produced by child's wish to spend his energy in physical activity.
      (3) Joy in participation in games.
      (4) Expansion of large and small muscles together with control and coordination.
   (i) Nature:
      (1) Ability to point out different food elements wherever seen.
      (2) Ability to give them their names.
      (3) Ability to recall colors of different vegetables and fruits.
   (j) Health:
      (1) Knowledge of healthful food.
      (2) Knowledge of correct care and preparation of foods.

2. Outcomes in—Continued.
   (j) Health—Continued.
      (3) Knowledge of correct and good foods to eat.
      (4) Habit of cleanliness developed with reference to body and garments.
      (5) An understanding of how home and society meet food needs of the child.

SUPPLEMENTARY WORK MATERIAL

In conjunction with the activity, it is desirable to have children use supplementary work material of the silent-work type. At first, directions for the work are given orally, the teacher illustrating carefully just what is to be done. In this way the child becomes accustomed to work procedures and acquires desirable habits in the use of material and tools. As soon as possible these oral directions are supplemented by simple printed statements.

The exercises presented in connection with this work were worked out with a gradation of steps of difficulty in mind. They are classified as follows:

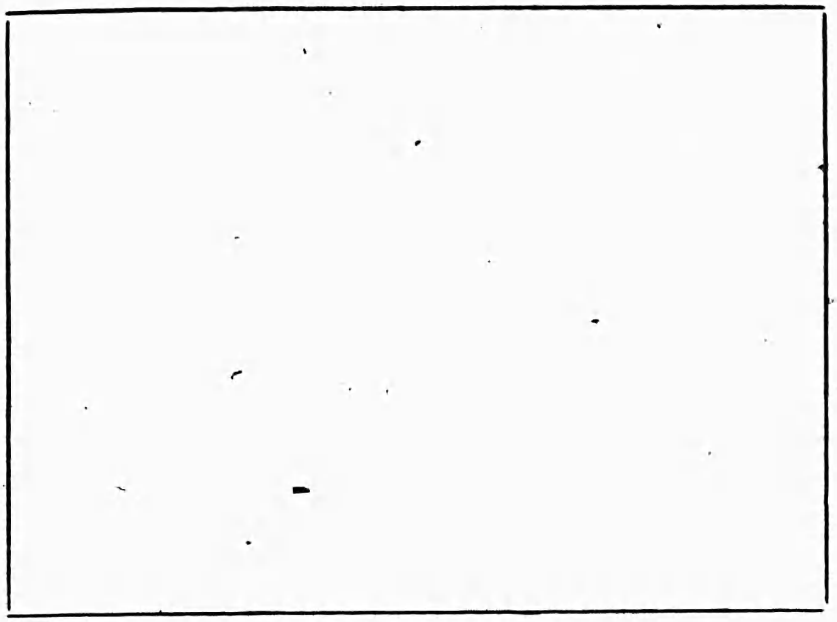
A. Cut and paste.
B. Draw.
C. Answer "Yes" or "No."
D. Selection.
E. Similarities.
F. True and false.
G. Reading comprehension.
H. Matching.
I. Phonetics.

A. Cut and Paste

1. What is the color of a beet?
2. What is the color of a tomato?
3. What is the color of milk?
4. What is the color of a prune?
5. What is the color of a pea?
6. What is the color of butter?
7. What is the color of graham crackers?
8. What is the color of an apricot?
9. What is the color of a huckleberry?
10. What is the color of a plum?

red	yellow	green
brown	white	red
black	green	blue.
	orange	

B. Draw



1. Draw a grocery store.
2. Put shelves in it.
3. Color the shelves brown.
4. Make a store.
5. Color the counter brown.
6. Draw an awning for the store.
7. Color the awning.
8. Draw cans for the shelves.
9. Color the cans.
10. Put the price tags on the cans.

C. Answer "Yes" or "No"

1. Was Tom the storekeeper?
2. Do we sell flowers in our grocery store?
3. Was Howard the cashier?
4. Did Ida go to the store with Lucy S.?
5. Is bread a vegetable?
6. Was Carmine the director?
7. Are peas a vegetable?
8. Are prunes dried plums?
9. Do we get pineapples from Hawaii?
10. Is bacon made from pork?

D. Selection

D–1. *Underline the correct answer*

1. Dominic bought ——— at the store
   lard, eggs, peaches, soap
2. Louis bought ——— at the store
   prunes, corned beef, flour, pork and beans
3. Tom went to the store with———
   Carmine, Louis, Frank F., Jerry
4. Lucy D. went to the store with ———.
   Salvatore, Vito, Dominic, Albert

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5. Peanuts are raised in ———
   Oregon, California, Virginia, New Jersey
6. Pineapple is raised in ———
   Indiana, Illinois, New York, Hawaii
7. Sixteen cents from one dollar is ———
   25 cents, 52 cents, 84 cents, 16 cents
8. Five cents from a half dollar is ———
   45 cents, 32 cents, 89 cents, 33 cents
9. Frank F. bought ——— at the store
   crackers, peanut butter, chocolate, milk
10. We sell ——— in our grocery store
    flowers, groceries, fish, books

D–2. *Cross out the word that does not belong*

1.	2.	3.
peaches pears apricots bacon prunes	Lux Dutch Cleanser butter Life Buoy Fels Naphtha	peas beans carrots corn lard
4.	**5.**	**6.**
cheese butter milk cream spaghetti	canned corn beef package bacon package sausage package frankfurts crackers	Quaker Oats hominy Lux Farina wheat biscuit

D–3. *Insert the right word*

1. When I go to the store in the morning, I say ———
2. When I leave the store, I say ———
3. When I ask the storekeeper for something, I say ———
4. When I go to the store in the afternoon, I say ———
5. When the storekeeper gives me something, I say ———
6. When I go to the store in the evening, I say ———

Good morning.
Good afternoon.
Thank you.
Good evening.
Please.

E. Similarities

Underline the words that are alike

1. Fels Naphtha, Quaker Oats, Life Buoy.
2. Canned peas, canned corn, Lux.
3. Canned corned beef, package bacon, canned peaches.
4. Dried prunes, package lard, dried raisins.
5. Canned peaches, canned peas, Fels Naphtha.
6. Graham crackers, Uneeda Biscuit, canned peas.
7. Condensed milk, canned pears, Farina.
8. Quaker Oats, evaporated milk, package bacon.
9. Package lard, package prunes, canned Crisco.
10. Lux, soap powder, Uneeda Biscuit.

F. True and False

Mark the sentences as true or false

1. Pork is raised from seeds.
2. Butter comes from plants.
3. Corn can grow in any soil.
4. Ida and Florence built the store.
5. Mabel and Jennie stocked the shelves.
6. Howard is the storekeeper.
7. Corn is 15 cents a can.
8. Soap is 5 cents a bar.
9. Bacon is wrapped in a box.
10. Farina is a cereal.

G. Reading Comprehension[1]

Louis, Salvatore, and Mario built a grocery store. The store has five shelves, a counter, and an awning. Carmine and Dominic stocked the shelves. Howard and Frank F. printed the names for the groceries and the prices for them. Carmine is the director. Lucy S. is the cashier and Howard is the storekeeper.

Who built the store?
How many shelves in the store?
Who stocked the shelves?
Who printed the names and prices for the groceries?
Who is the director?
Who is the cashier?
Who is the storekeeper?
How many counters in the store?

[1] This exercise was presented last in the series, after the work in matching (H) and in phonetics (I) had been done.

H. MATCHING

H-I. CUT OUT AND PASTE THE PICTURES IN THE CORRECT PLACES

1. The chicken lays me.
   What am I?

2. The children eat me for breakfast.
   What am I.

3. I come from the cow.
   What am I?

4. I make the house clean for mother.
   What am I?

5. I grow in Hawaii.
   What am I?

6. I come from the pig.
   What am I?

7. I am raised and dried in California.
   What am I?

8. I grow in Virginia.
   What am I?

9. I am canned in Camden, N.J.
   What am I?

10. I am spread on bread.
    What am I?

Peanut

Raisins

Butter

Sausages

Egg

Soup

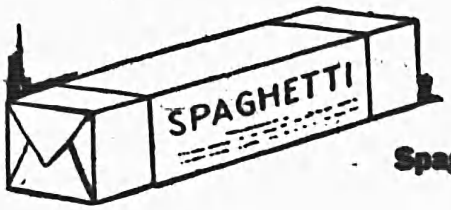
Milk

Cereal

Pineapple

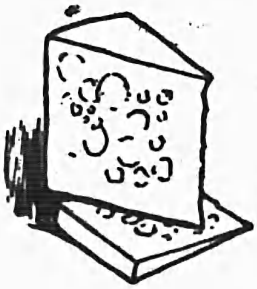
Cleaning Powder

H-2. MATCH THE WORD WITH THE PICTURE

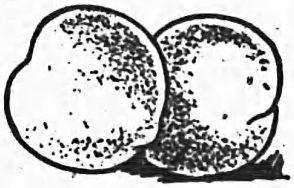


Spaghetti

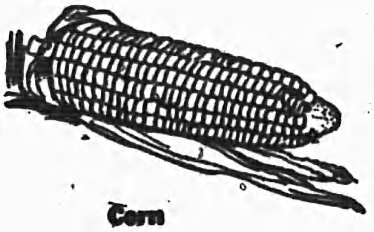
Washing Powder



Cheese



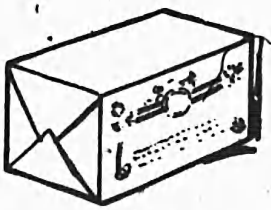
Peaches



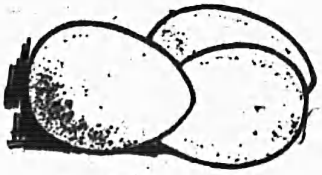
Corn

Lard

Bacon



Butter



Eggs

Carrots

Spaghetti

Peaches

Cheese

Carrots

Washing Powder

Butter

Lard

Bacon

Corn

Eggs

I. PHONETICS

PASTE THE PICTURES UNDER THE RIGHT SOUNDS

B C D F G H

J K L M N P

Q R S T V W

Bacon

Ginger Ale

Lard

Raisins

Vinegar

Corn

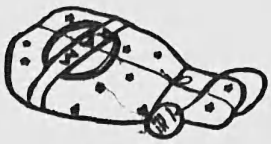
Jelly

Mince-Meat

Washing Powder

Flour

Peaches



Ham

Soap

Tomatoes

Dish


Soup

BEAR

III. FOODS FOR BOYS

By Ada M. Whyte,[1] *Rochester, N.Y.*

[Note.—To help boys to appreciate food values as well as to prepare a real meal is indeed a worth-while undertaking. How such an activity functioned both at school and at home with a group of retarded boys is here concretely described.]

This activity was carried on with a class of 19 boys whose chronological ages ranged from 11–9 to 15–5, with a median chronological age of 13–0, and with intelligence quotients ranging from 46 to 80. The median I.Q. was 67. This class was the only special class in an elementary school of six grades having 17 regular teachers and 620 pupils. Five of these boys came to the class directly from the third and fourth grades, while 14 of them had experience in primary and intermediate special classes.

A few more than one half of the boys were indigent, 5 came from broken homes, 2 from a boys' orphanage, and 3 had homes above the average. The boys came from several neighborhoods in the west end of the city. Five were carried by the school bus, and 2 whose parents could afford it furnished their own transportation from the other side of the city. As to nationality, we had 1 colored boy, 2 Jews, 2 Irish boys, 1 Polish boy, 1 Italian boy, 2 boys of Italian and American parentage, and 10 American boys.

Besides the general objectives of the elementary school in the tool subjects, our special classes aim at a program that will enable the boy (1) to use his leisure time profitably, and (2) to contribute his share to home and civic life. Owing to the great diversity of ability, a boy might be in the best group of the class in one subject and in the lowest group in another. We try to place him with the group where he can make the best adjustment and work to his fullest capacity, always holding before him the goal of working up to the next level.

[1] Miss Jessie Cole, teacher of home economics, cooperated in carrying on this activity.

THE SETTING

About one half of the class had a pleasant experience in home economics during the previous year. They were eager to know more about the food materials with which they had worked. They were interested in the label on the salmon can, in knowing how the grocer gets the fresh vegetables from the farmer, whether salt grows and why we put it on the ice when we freeze ice cream, how the oyster gets its food, what makes the biscuits rise, why cream comes to the top of the milk, and so on.

HOW THE ACTIVITY WAS CARRIED OUT [1]

We started out to see how much we could find out about foods and how many of our problems we could solve. We took as our first big question, "Where does the grocer get the food he sells?" One boy had lived near the public market and had seen the farmers bring in daily loads of produce. He also told of the people in the neighborhood going there to buy their supplies. The boys made inquiries at home and reported that the public market was the place to find out about food supplies. One boy went to the office and found that the 4B class in our school was studying about Rochester. So he borrowed from that class the book which told us some of the things we wanted to know. We found that the people of Rochester had always needed a public market; that, when Rochester was only a small village, they had started one on the Main Street bridge and the farmers brought their produce there to sell. The building finally fell into the river. Then the farmers began to sell on the corner of East Avenue and Main Street where Sibley's now is, but that was too crowded and the main corner became so noisy and cluttered that the people complained and began to ask for a city public market. So after years of study a fan-shaped piece of land was bought on Union Street by the New York Central tracks. The boys looked in their telephone books to find out if the market was still located there. We planned to visit it. As it was 2 weeks before we could arrange our trip, we spent that time finding out what we could about the market. We did much reading and English

[1] The work on "foods" was carried over the entire semester. Only part of the activity is reported in this article.

work along this line. We borrowed photographs from another class and set them up on the blackboard rail for study. They were:

1. End view of one of the sheds.
2. Banana wagon.
3. Shed in public market. Box car in distance.
4. Shed in public market. Wholesale store.
5. Fruit and vegetable display on walk under the shed.
6. Type of box car which brings produce to public market.
7. Huckster's wagon partly loaded.

By using the Keystone Views with stereoscopes, we found that the markets of Europe sell all kinds of merchandise, while in this country we usually sell only farm produce. We found the following views interesting:

No. 488. Bread market.—Poland.
No. 375. Livestock market.—Ireland.
No. 385. Open-air china market.—Germany.
No. 406. Busy harbor.—Copenhagen.
No. 555. The native market.—L. Victoria, Africa.

At last the day arrived for our trip. Each boy carried a pencil and a piece of tagboard on which he wrote down in order the streets on which we traveled. When we arrived we found the place thronged with people. There were farmers with wagons, autos, and trucks, loaded with produce to sell; housewives with autos, carts, baskets, and even baby carriages to take the vegetables away; and lastly, many hucksters loading up their trucks as attractively as possible, to peddle around the city to the busy housewives who could not come to the market. We felt as though we wanted to buy something, too, so we used 35 cents of our small fund to buy a basket of grapes to bring home with us. The boys took turns in carrying the basket and there were no bigger or prouder men there than the ones entrusted with that job.

We noticed that the sheds were made of steel with pavements sloping to the curb to hold the trucks. We were told that the farmers had to pay 50 cents a day for a stall there; that, since they must close at noon, they came very early in the morning; in fact, they were there at daylight. We noticed the license on the hucksters' trucks. We watched the weigher put live chickens on the scales and noticed that there was a policeman there to keep order.

Long before we were ready to leave, the driver told us our time was up, so we had to return to the bus. On the way back we again checked our streets. As soon as they were inside the classroom, the boys immediately turned to the seven photographs before mentioned, and it was interesting to note the increase in zest and enthusiasm with which they studied each little detail.

In the discussion which followed our visit to the public market, we learned that "wholesale" means selling in large quantities, and "retail" means selling in small quantities. An excursion was then made to a wholesale company where the boys saw the goods handled in large lots; noticed how cases were loaded on the train by the door; saw the raw coffee and the entire process of roasting, weighing, and putting in packages. The boys sampled raw peanuts, were surprised to find they grew under the ground, and were presented with some to take back to school, where we afterwards roasted them in the oven.

Then we visited a retail store where produce is sold in small quantities. We noticed the arrangement of the goods—where the meat was, the baked goods, the dairy products, the candy, the fresh fruits and vegetables, the dry groceries, etc. We found they were having a steak sale. When we returned to our classroom, one of the boys raised the question as to why stores had sales. They decided that a sale might attract customers who would probably buy other things, that the merchant might have an oversupply, and that perishable food such as meat might spoil. This led to discussion of ways of preserving food, which we had to leave for another day. The boys drew maps to show the arrangement of the store. We could not quite agree as to where the cheese counter was, so one boy was appointed to go that night and check on it.

At about this time two boys living on the other side of the river reported that there was a barge of sugar at the dock. We decided to go over to the bridge, which is about 10 minutes' walk from the school, to see for ourselves. By the time we reached the river, the fleet, consisting of the tug and three barges, had started back. It was very interesting to watch the busy little tug doing all the work. We noted which way the Genesee River was flowing, pointed in that direction, thought about our maps and figured out that it was north.

Then we tried to think into what larger body of water it would flow. Many of the boys knew that it was Lake Ontario. Many of them had been there. We saw the Lehigh Valley Railroad on one side of the river and the Erie on the other. A train came whizzing along the Lehigh tracks, and we contrasted shipping by rail and by water. It was very evident that the railroad was much faster, but when we thought of how much money the cars, the big black shiny engine, and the miles and miles of railroad track must have cost, we concluded that it must also be more expensive to ship goods by rail. Later we were told at the chamber of commerce that sugar was about the only kind of food that was shipped to Rochester by water. Gas, oil, and lumber were the main products shipped in that way.

In the home-economics class, which met twice a week, we used the foods about which we were studying. Tomatoes were very much in evidence in every grocery. The boys canned them, and when they opened the cans in January to make scalloped tomatoes, they were delighted. They also made grape juice, but that did not turn out quite so well. Among the fruits used were apples in apple sauce, lemons for lemonade, and dried apricots. The latter had to be soaked over-night in order to put back into them the moisture that had been taken out by drying—a splendid illustration of evaporation in drying. We saw the raw peanuts at the warehouse, and then made peanut brittle. The crowning achievement, however, was our Christmas dinner. In our classroom we made favors of little green Christmas trees decorated with tiny colored paper circles. We also arranged other decorations and the home-economics room wore quite a festive air. The boys prepared the dinner, and because they had they reveled in it. We had meat loaf, mashed potatoes, and creamed onions. They pronounced it the best dinner they had ever had.

During December the class made sewed cook books with oilcloth covers containing the recipes for all the dishes they had prepared during the term, and presented them to their mothers for Christmas. This proved to be an excellent tie-up with the home.

The activites in tool subjects, health, and social studies are summarized below. Individuals participated and profited according to their abilities.

Number:

1. Using in simple oral and written one-step problems the number facts taught.
2. Carrying out fundamentals learned in examples using dollars and cents.
3. Knowing units of measure so far as taught and making simple applications of them.
4. Increased understanding of fractional facts.

The following are examples of problems used:

1. There were 7 pounds of grapes in the basket which we bought at the public market. We paid 35 cents for it. How much was that a pound?
2. If butter costs 32 cents a pound, how much must I pay for one-half pound? For one-fourth pound?
3. Mother buys one-half pound of tea. How many ounces is this?
4. On the outside of this can of peas it says 1 pound 4 ounces. How many ounces in the can? Weigh and check.
5. We bought 2 pounds of raw peanuts at Brewster Gordon at 9 cents a pound. How much did they cost?
6. What change did we get back from our quarter?
7. We used 1 dozen lemons for our lemonade. How much were they worth at 4 cents apiece?
8. We had 4 pounds of sugar at 6 cents a pound. How much for the sugar?
9. Find the whole cost of making lemonade that day.
10. How much for each boy?

English:

1. Writing a letter to United Fruit Co., 1 Federal Street, Boston Mass., asking for information about bananas.
2. Discussion of how to conduct ourselves when on a trip according to standards of courtesy set up by the boys.
   (*a*) We won't crowd.
   (*b*) We will take off our hats when we enter a building such as the library.
   (*c*) We will look at the person who is talking to us.
   (*d*) We will try to learn all we can on every trip.
3. Listing boys who have gardens at home.
4. Listing vegetables we are getting from garden now.
5. Listing fruits grown here.
6. Study and discussion of a picture of the Killarney Live Stock Market, Ireland, followed by written test.
   (*a*) How many wheels on the wagons?
   (*b*) Do you think it is raining? Give two reasons.
   (*c*) Name two kinds of animals for sale.
   (*d*) What do we call the meat we get from cattle? from sheep?
   (*e*) What do we mean by pastures? What makes the pastures of Ireland good?

English—Continued.

7. Keeping a vocabulary list in notebooks and adding new words as they arise. *Example:* Market, stall, huckster, pasture, beef, mutton, beverage, etc.
8. Borrowing book from library and reading aloud by the teacher.

Spelling:

1. Learning to spell new words in connection with unit.
2. Keeping of individual spelling notebooks. Every boy's book was different. It contained only the words which he needed.
3. Finding the words in the dictionary.
4. Arranging spelling words in alphabetical order.

Reading:

1. An account of the public market as given in "Rochester, Its Service to People at Home and Abroad," 4B grade, page 16.
2. Making and reading group outline of leading points regarding the market.
   - (*a*) Location.
   - (*b*) Interesting sights.
   - (*c*) Stalls:
     - (1) Fruit.
     - (2) Vegetables.
     - (3) Butter and eggs.
   - (*d*) Scales and measures.
   - (*e*) Policeman.
   - (*f*) Service to:
     - (1) The farmer.
     - (2) The housewife.
   - (*g*) Wholesale companies:
     - (1) Located near the railroad.
     - (2) Carry a large supply.
     - (3) Sell to the grocer.
   - (*h*) Retail companies (chain stores).
3. Reading to the class by some of the best readers of descriptive parts from the backs of the Keystone Views.
4. Collection and classification of labels and analysis of information obtained from them. Labels were brought for the following products:
   - (*a*) Dairy products: Milk.
   - (*b*) Delicatessen: Vegetable soup, chicken soup, spaghetti, sauerkraut, tomato soup.
   - (*c*) Fruit: Pineapple, grapefruit, tomatoes, apricots, apples, peaches.
   - (*d*) Vegetables: Beans, string beans, peas, corn, artichokes.
   - (*e*) Meat: Sardines, salmon, mackerel.
   - (*f*) Beverages: Coffee.
5. Reading recipes from the cook book which we made.
6. "Patty Pans," Chapter 9: "Washing the Dishes."

Reading—Continued.

7. "Household Arts for Home and School,"[8] by Cooley and Spohr, Chapter I: "Storing Fruits and Vegetables for Winter."
8. "Every-day Foods,"[8] by Harris, Chapter XXIV: "Let's go Marketing."
9. Drawing book from library, "The Lively Adventures of Johnny Ping Wing", by Phillips. Best readers read it to class.
10. Reading signs.
11. Looking at pictures in encyclopedias and trying to read enough of the title to get an idea of what the picture is about.
12. Using Book of Knowledge.
13. Using Compton's Pictured Encyclopedia.

Health:

1. Noting cleanliness in caring for food in Wegman's grocery.
2. Finding out what the pure food laws mean and how they help us.
3. Observing the wrapping of our bread in oiled paper to protect from dust, germs, flies, and dirty hands.
4. Observing the uniformity of bread as to size, shape, color, and taste.
5. Studying and using proper foods for growth and health.
   (*a*) Foods that give us strength for work and play:
   Starches: Potatoes, bread, macaroni, rice.
   Sugar: Sugar, candy, syrup, raisins.
   Fats: Butter, lard, cream, fat in nuts.
   (*b*) Foods that build and repair: Meat, fish, eggs, milk, cheese, nuts, cereals.
   (*c*) Foods that regulate: Fruits, vegetables, water.
6. Buying fruits and vegetables at public market in season and preparing for winter by canning or drying.
7. Studying the preservation of meat by freezing, salting, and drying.

Social studies:

Social studies were carried on throughout the unit in the preparation and handling of materials. The sources of food, the service of the public market, the shipping of foods, the handling of foods in large quantities have all become subjects of interest and knowledge. Constant reference was made to the direction, distance, and location of places. Maps were drawn of trips, places were located on maps and on the globe. Questions such as the following were discussed:

In which direction did we travel to the wholesale company? In which direction did John walk when he went home from Wegman's? Look at the smoke from the factory and see which way the wind is blowing.

We walked about a mile to the library. What corner is about one half mile from here?

[8] Read to pupils. Then yes-no test given.

OUTCOMES

Because the parents became so interested in our unit, we sent them a questionnaire to find out just how the work had helped the boys to improve in their homelife. As the majority of the parents were below average, the replies may be judged accordingly. Some of the mothers' comments may be summarized as follows:

Has taken certain duties such as ——— of his own accord and likes to do them.

Tells me where certain foods come from, wants to know about others.

Asks how food is prepared. Sometimes makes suggestions.

Wrote two letters to relatives without any suggestions from us. They were well composed and well written. They were all ready for mailing before we knew they had been written.

Most every night takes something interesting out of the newspaper so as to help in school.

Getting better in his behavior than ever before. (Said of boy with reputation of being "troublesome.")

Watches how things are done and talks about them, and helps around the home.

Greatly interested in other people as to what they are doing and what for.

More like boys of his age. (Said of most incapable boy in group.)

Able to deliver newspapers and make change, also dependable on errands. (Said of a boy with a broken home—living with grandparents who are much too old to be interested in the problems of an active 12-year-old boy.)

In contrast to the formal type of learning, I would say the outcomes may be summed up as follows:

1. The boys learned more in the same length of time because they really wanted to know.
2. The boys were interested in studying about materials which they were actually handling.
3. The boys developed a feeling of self-respect because they were finding out for themselves.
4. The boys learned how to behave in many different environments.
5. The boys were enabled to take part in the ordinary conversation of the family.
6. The boys developed an incentive to read the newspapers.
7. The boys gained the respect of other pupils and teachers.

8. The work carried over into the home and the parents were interested.

9. The activity gave the teacher practical goals to work for, freedom to carry out her class work, and a feeling of satisfaction when the unit was rounded up.

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IV. CHILD CARE

By Julia Lyons, Gertrude Jarm, Florence Page,
Beatrice Zdara, *Cleveland, Ohio*

[Note.—One of the most important fields in which the retarded girl needs special training is the care of children. Both as a preparation for motherhood and as a possible means of earning her own livelihood, it should be given careful consideration in all special classes of adolescent girls.]

The school in which this activity was carried on is an ungraded center enrolling 87 pupils. Thirty-six of these (all girls) took part in the units described. Their chronological ages ranged from 14 to 16 years. In mental age they varied from 8 years 2 months to 9 years 8 months. Foreign parents of the laboring class, predominantly Slavic, thrifty and neat, constituted the major home background.

The activity is divided into three units, each comprising an essential part of the total project.

UNIT A

Entertainment of child from 1 to 6

I. Objectives

1. Direct objectives:
   - (*a*) To develop the ability to tell stories.
   - (*b*) To help in selection of suitable stories.
   - (*c*) To teach reading through a new interest.
   - (*d*) To develop better judgment by discussion of play and games.
   - (*e*) To create new ideas for play and original entertainment.
2. Indirect objectives:
   - (*a*) To prepare girls to give better service when caring for children.
   - (*b*) To fit girls for nurse-girl positions.
   - (*c*) To build ideals for future homes.
   - (*d*) To instill the value of play.

II. Methods and Activities Used

1. Story telling:
   - (*a*) Method used to prepare girls for socialized activity:
     - (1) Teacher and pupils told stories in classroom.
     - (2) Class discussed advisability of outline.
     - (3) Outline for story was developed, as follows:
       - (*a*) Introduction: Who, when, where.
       - (*b*) Events of story, with correct sequence.
       - (*c*) Conclusion, with some satisfaction in the experience of the listener.

1. Story telling—Continued.
   (a) Method used to prepare girls for socialized activity—Contd.
      (4) Stories were outlined at school and written from outline at home.
      (5) Groups of four or five girls worked for perfection and then told story to class.
      (6) Class graded ability of story teller and judged whether she was prepared for application of the method.
   (b) Activity applying the method:
      (1) Stories were told to a group of 28 preprimary children at 9 a.m. and at 1:30 p.m. Girls went in groups of three or four.
      (2) Preprimary teacher passed judgment and girls reported on one another's work.
      (3) Stories were told at home and reported on.
      (4) Stories were told publicly at the baby party, described later.
2. Selection of material (inseparable from 1, above):
   (a) Class discussed types of stories suitable for children.
   (b) Teacher told various types of stories:
      (1) Nursery rhymes.
      (2) Stories of animals personified.
      (3) Fairy stories.
      (4) Short stories of people and events.
   (c) Class agreed that library books offered much good material.
   (d) Books were brought from home and from library, and judgment was passed on them.
   (e) Lists of books were tabulated for future needs.
3. Games:
   (a) Class discussed different types of games:
      (1) Instructive games: For counting, for recognition of objects, for habit formation.
      (2) Constructive games: Drawing, painting, pasting, building, cutting, gardening.
   (b) Girls observed children at play.
   (c) Reports were made on play as conducted in other groups, such as the kindergarten and nursery school.
   (d) Class discussed the value of play from the standpoint of health and recreation.
   (e) Girls applied knowledge at home and reported.
   (f) Each girl made a scrapbook and a cut-out puzzle. (Home work.)
   (g) The girls planned and conducted a baby party of their own, at which they entertained with games, toys, and stories. They also made and served the refreshments. Twenty children under 6 years of age were present.

4. List of stories told by girls to preprimary group:

Mrs. Tabby Gray.
The Bean.
The Porridge Pot.
The Little Pig.
Little Black Sambo.
The Mouse and the Frog.
The Wind's Work.
The Stork and the Frogs.
The Seven Little Goslings.
Little Two-Eye.
How the Turtle Saved His Life.
Tiny Rosebud.
The Tar-Baby.
Little Halfchick.
The Wolf and the Seven Kids.
The Hare and the Grasshopper.
Two Dogs, Jip and Jack.
The Pig With a Curly Tail.
The Three Bears.
The Star Dipper.
The Fox and the Bag.
The Foolish Frog.
The Three Little Pigs.
The Teeny-Tiny Woman.
The Fox and the Hen.
The Girl Who Would Not Work.
The Foolish Turkey.
Please and Thank You.
The Lion and the Mouse.
The House With a Star inside.
The Little Helpful Engine.
The Billy Goats Gruff.
Red Riding Hood.
The Hare and the Tortoise.
The Little Boy Who Forgot to Wash His Hands.
Henny Penny.
The Old Woman and Her Pig.
The Greedy Cat.
Why the Bear Has a Stumpy Tail.
The Elves and the Shoemaker.

UNIT B

Food for the preschool child

I. Objectives

1. To enable the girl to prepare in the most sanitary manner foods prescribed by the doctor, nurse, or dispensary.
2. To give the girl a working knowledge of the first solid foods for the baby and of the change in preparation with the advance in age.
3. To help the girl to recognize a well child from the following indices: Weight, height, color, appetite, activity, sleep, eliminations, eyes, ears, nose.
4. To enable the girl to plan, prepare, and serve an attractive simple dietary which meets the bodily needs of the growing child.
5. To teach good food habits for children and to help parents and older children to set an example by their manners and food habits.
6. To teach the girls how to make a child happy; the effect of unhappiness upon his appetite and disposition; the matter of discipline at the table.
7. To teach the importance of keeping the child well and the factors which aid growth, such as proper food, sleep, water, sunlight, freedom from physical defects, regular habits, exercise, and fresh air.
8. To teach the care of a sick child.

QUIET!


EAT A GOOD
BREAKFAST
ORANGE JUICE
WHOLE WHEAT TOAST
OATMEAL
MILK TO DRINK

9. To change the attitude of the girl toward the feeding of her smaller brothers and sisters and toward nurse-girl services; to help her share in creating happiness by helping younger children and by relieving tired mothers.

II. Methods and Activities Used

1. The girls collected articles and pictures from newspapers and magazines for their notebooks.
2. Baby bottles and other equipment were collected from the homes and brought to school. Bottles were sterilized, a formula was prepared, and all other details incident to baby feeding were put into practice.
3. Mimeographed copies of daily food plans were distributed and discussed. Dietaries from the girls' homes were also used.
4. The child's four daily meals were prepared in class over a period of four lessons. The girls worked in family groups and each group borrowed an underweight child from the kindergarten to eat the meal prepared. A small table with small chairs was used. The girls made a tablecloth, embroidered bibs and napkins, and bought gay dishes from the 10-cent store. This plan provided a laboratory for the working out of the good food habits discussed in class. It also stimulated a new respect for oatmeal, whole-wheat bread, milk, and other simple foods on the part of the girls.
5. After the course was completed, we had a children's party to which each girl brought a small child. Suitable toys, books, and puzzles were made; stories were told; and refreshments suitable for a small child were served.

UNIT C

Care and hygiene of preschool child

I. Objectives

1. To develop in our girls a wholesome, right attitude toward babies and younger children in the home.
2. To give some understanding of care and hygiene of infants and children.
3. To teach the selection of materials and the making of simple garments for infants and children.
4. To show girls how to make suitable and inexpensive toys of materials which they have in their own homes.
5. To help the girls to be more efficient and to get more joy out of caring for children after school hours and during vacation as a means of earning money.

II. Contacts Made

1. With department stores for study of baby garments and other items.
2. With day nursery school for observation of children and care given them.
3. With baby clinic for study of infant behavior and attention required.

III. Outline of Content Presented

1. Early observations of the infant:
   (a) Height and weight: At birth; at 6 months; at 1 year.
   (b) Posture when asleep.
   (c) Breathing.
   (d) Skin.
   (e) Expression of face.
   (f) Muscular development: At 3 months; at 6 months; at 1 year.
   (g) Exercise: Kicking, crying, crawling, playing.
   (h) Methods of handling baby: Lifting, holding, carrying.
2. Clothing:
   (a) For the infant: We compared and discussed layettes and decided upon a simple layette of inexpensive materials. Flannelette and long cloth were used with trimmings of fancy stitches.
   (b) For the child from 1 to 6:
      (1) Bases of selection: Health, comfort, convenience, pleasure of child, training of child.
      (2) Articles needed: Underwear, sun suits, play garments, night clothes, shoes and stockings, mittens, storm garments. Some of these garments were made in class by the girls for their families, for friends, or for sale.
      (3) Care of clothing: Changing, washing; child's responsibility in hanging up and handling.
3. Water:
   (a) For drinking: Amount; time; sterilization.
   (b) For bathing: Temperature; types of baths; methods of giving. Our school nurse bathed a 9-months-old girl in class. The baby was a child from the neighborhood. The bathing of an older preschool child was also observed and discussed in class.
4. Fresh air; sunshine; ventilation.
5. Sleep: Requirements and cautions to be observed.
6. Special care of eyes, hands, ears, nose, teeth, hair, finger nails, genitals.
7. Nutrition and health.
8. Summer care of babies and children.
9. Habit training.
10. Toys: The girls made inexpensive toys in class, such as rag dolls and cats; yarn dolls; tinker toys.

SIGNIFICANT OUTCOMES OF THE UNITS

1. Change in attitude toward motherhood and babies.
2. Appreciation of importance of consulting skilled aid (doctors or nurses) through the free agencies (dispensary, nursing centers, or visiting nurses) and of following their orders.

3. A new interest in clothing, feeding, and habit formation for younger children.

4. A desire to show skill in entertaining children.

5. A marked improvement in English, growth of vocabulary, and poise.

6. A new interest in reading, as the girls found children's stories within their own comprehension.

7. A new respect for the position of "nurse girl."

8. An interest in establishing favorable conditions for homes of their own.

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V. THE NURSERY PARTY

A CHRISTMAS ACTIVITY FOR SLOW LEARNING CHILDREN

By GLADYS MAY MACLIN, *Denver, Colo.*

[NOTE.—Here is a concrete means of giving a festive air to real training. Attitudes, habits, and skills are all brought into action through the plans that were made for a party.]

As teacher of a senior special class I was confronted with an unusual situation in which the prevailing characteristics of both the pupils and their environment were unique, since most of the children were inmates of an institution for dependent and neglected children.

CHARACTERISTICS OF GROUP

Before attempting to initiate an activity with such a group of pupils it was necessary to become familiar with the individual characteristics of the group and with the environment in which these children lived. This was done through several short units of work planned to reveal the abilities of the individuals in subject matter. A careful testing program of the 24 children (13 boys and 11 girls) showed the following characteristics:

Chronological ages ranged from 12 years to 15 years.
Mental ages ranged from 8 years to 11 years.
Binet I.Q.'s ranged from 56 to 74.
Average chronological age was 13 years 1 month.
Average mental age was 9 years 2 months.
Average I.Q. was 67.

The grade abilities of the group were found to be as follows, according to Denver tests:

In reading:

2 had less than 2B ability.
9 had 2A ability.
7 had 3B ability.
3 had 3A ability.
2 had 4B ability.
1 had 4A ability.

In arithmetic:

Two scored 0.
Five had less than 3B ability.
Nine had 3B ability.
Six had 3A ability.
Two had 4B ability.

These abilities represented lower accomplishments than I had yet experienced in a senior group of slow-learning children of these ages. Investigation of the sources from which most of my pupils came revealed the following facts:

1. Their parents were in some cases practically illiterate.
2. They had proved themselves unfit, for one reason or another, to rear their families; hence the children had become State dependents.
3. Many of the children had lived too far from outlying schoolhouses to attend regularly.
4. Many of the older children had been kept at home for farm and family duties during spring and fall, missing a large part of the school term.
5. When these children did attend school they were placed in classes with normal 7- and 8-year-old children; the teacher did not know how to handle such cases; usually she lacked the time and materials as well as the training for doing much with them.
6. Two of the children were mentally impaired through infantile paralysis. One was a cretin 14 years of age but of kindergarten development both mentally and physically. Four came from neighboring schools, three of them living in squatters' shacks along the river banks.

The attitude of the group made it difficult to know what might interest them. Some of them resented being in school at all. Some were unsocial toward one another. Their treatment of younger children on the playground made it advisable to give them separate recesses. They were not interested in books because they were able to get little satisfaction from them. They chafed under the authority of the employees of the Home and were not appreciative of the advantages it offered in the way of good food, comfortable clean beds, and an opportunity for wholesome play and work.

During September and October I worked to gain some spirit of cooperation and solidarity in the group, using each week simpler plans and materials, as I found that even methods suited to their mental ages brought poor results

because of lack of foundation in tool subjects. By November I was using primary methods for developing reading abilities.

HOW THE ACTIVITY BEGAN

As Christmas approached these children showed interest in gifts for their little brothers and sisters. Eleven of the group had brothers and sisters in the nursery at the Home and were particularly anxious to remember them at Christmas.

We decided to plan a visit to the nursery to see these little folks in their own surroundings. A note was written to the superintendent asking permission to go, and our visit followed. We enjoyed inspecting the gayly decorated dormitories and the sunny, cheerful playrooms. The big brothers and sisters proudly exhibited the younger members of their families to the class. We saw what toys they had, a stock now in need of replenishment.

THE CLASS PURPOSE ARISES

Upon our return the children showed an earnest desire to contribute in some way to the Christmas joy of their own brothers and sisters who lived in the nursery. Some of the outsiders (who did not live at the Home) wished to contribute to other little ones they saw there. It was finally suggested by one of the children that our class could make toys for all the 28 children in that department. This idea was discussed and later accepted by the class.

Various types of toys were suggested, with no particular plan in mind. Some attractive pictures of Goldilocks and the Three Bears led one boy to suggest that we make toys to represent the characters in that story. Then books of interest to nursery children were perused to find other ideas for toys.

This furnished strong motivation for intensive reading of many easy stories. An older girl read aloud some stories to her little sister to see which ones she enjoyed most. Soon several children were asking to read aloud to the first-grade class to see what stories and characters pleased them most. This desire motivated much needed practice in oral reading.

PLANNING IS BEGUN

The following questions arose in deciding what toys were to be made and how to make them:

What are the main characters in this story?
Would they be interesting to little children? Why?
What should be the appearance of the doll representing each character? (Size, sex, apparent age, dress, facial expression, and distinguishing characteristics were all needed to answer this question.)

This led to much interpretative reading, through which a foundation was laid for improvement in many reading skills which these children needed. When the period of exploration was over the group as a whole was ready to make definite plans. Since planning was one type of thinking in which these children were deficient, every opportunity was given them to engage in it. Each child contributed his suggestions, which were written on the board with the initials of the contributor. These were discussed and the plans most acceptable to the class were written in more permanent form, to be enlarged upon or improved as experience dictated. The first general plans read as follows:

Our plans for the nursery Christmas party

I. Make toys for the children. Each toy will stand for a character in a favorite story.
II. Give a party for these children when we present their toys.
(*a*) Have a Christmas tree and Mr. and Mrs. Santa Claus.
(*b*) Have something for our guests to eat.

Several English lessons were given over to discussion of detailed plans to carry out the two main ideas, the making of the toys and the giving of the party. More detailed plans were made in chart form, the class contributing ideas gained from reading books on toy making. Such a chart as the following resulted:

How to make the toy

1. Choose the toy to be made.
2. Write out description of toy.
3. Decide on size and materials.
4. Make or find pattern for toy.
5. Finish according to special directions.
6. Label toy for child who is to receive it.

The chart given below was made to record individual responsibilities and achievements. It was filled out as work was completed.

Name of story	Character or article to be made	Maker of toy	Date		Remarks
			Begun—	Finished—	
The Three Bears.	Papa Bear	Louis	Dec. 11	Dec. 18	Louis made his own pattern.
	Mama Bear	Helen	Dec. 9	Dec. 17	Helen learned to use sewing machine.
	Baby Bear	Grace	Dec. 10	Dec. 17	Grace embroidered the eyes, nose, and mouth.
	Goldilocks	Ruth	Dec. 10	Dec. 20	Ruth dyed the wool for the hair.
	Chairs	Robert	Dec. 8	Dec. 21	Robert made cushions for his chair.
	Beds	John and Everett.	Dec. 8	Dec. 21	The boys made their own bedclothes.
	Table	Ed	Dec. 14	Dec. 21	Helen showed Ed how to make the tablecloth.
	Bowls	Joe and Mary.	Dec. 18	Dec. 21	Joe made the bowls; Mary painted them.
Chicken Little, etc.	Hen Pen, etc.	Harry, etc.	Dec. 11	Dec. 18	Harry used real feathers for the tail.

CARRYING OUT PLANS

The toys were made of materials furnished by the practical arts department. A surprising amount of ingenuity and initiative was called forth in making the articles planned. Each child kept a simple record of directions to use if he cared to repeat the process at home. For three weeks the classroom was a busy workshop; a spirit of cooperation and unselfish effort gradually replaced the thoughtlessness which formerly characterized the group. Many of the workers were clumsy and unskilled in the use of tools, so a high degree of perfection was not sought, but some toys were quite well made, and all were bright and attractive enough to please the little guests. During the process of making, the stories were read and reread to check certain details in the appearance of each character or article. Directions in various books on toymaking were read over and over to gain a clearer understanding of some difficult part of the process. Books proved their value to these interested toymakers in attaining their desired goals.

When the actual work of construction was well under way, we turned our attention to the plans for the Christmas party. Since entertaining a group of little guests was a new experience to the class, it called forth such puzzling questions as the following:

1. How shall we invite them?
2. Where shall the party be?
3. What shall we do to give them a good time?

Again the need for careful planning arose. These children who a month ago considered it fun to tease a small child on the playground now busied themselves with such plans as:

1. How to write the invitations.
2. How to plan our entertainment (tree, gifts, stories).
3. How to receive guests.
4. Introducing matrons and guests to our principal.
5. Responsibilities of each member of class for the comfort and enjoyment of one small visitor.
6 Bidding guests goodbye.

As their interest in the ordinary courtesies of life increased, their attitudes toward one another changed, until by the time the work of planning was over it was difficult to believe that this was the same group that had been so unsocial. A written chart of all courtesies heard in the room was kept from day to day. Children unconsciously vied with one another to see which could become the most hospitable host to his small guests.

The party was arranged for Thursday. By Tuesday everything was ready—the toys finished, the tree decorated with simple, home-made decorations, tiny popcorn men ready for each child, plans for the welcoming and entertaining of the visitors completed. Wednesday was spent in discussing last-moment details to be sure no misunderstandings would mar the pleasure of the event. At this time we checked our plans item by item to see if everything had been carefully carried out. A feeling of satisfaction and anticipation was apparent when one plan after another was checked as completed.

The afternoon for the party found all in readiness, eager to share the fun of the day with the children from the nursery. All arrived dressed in their holiday apparel. The party was a real success, the hosts showing great pride in their handiwork

and in their ability to entertain the little tots from the Home. The little guests were pleased with their toys around which the respective stories had been woven by the best story tellers of the group as Mr. and Mrs. Santa Claus presented them. As the nursery tots departed with their toys and popcorn men at the end of a happy hour, I am sure that the senior special class was by far the happier group of the two. Their faces fairly beamed with pride and satisfaction at the success of their undertaking.

It was unneccessary for the teacher to ask for any formal judging of their attempts. They freely discussed the pleasure of the little ones, commenting on all phases of their first school party. Such remarks as "Did you see Billy's eyes shine when Santa gave him the Papa Bear?" or "Helen says she's going to take Chicken Little to bed every night!" were evidence enough that these problem children were impressionable material if one had patience enough to find their interests and to develop them on the needed level of ability no matter how low in the academic scale that might be.

A few weeks after Christmas plans for Valentine's Day were suggested. Only one idea seemed to prevail—to give a Valentine party for little children, this time for those in grade 1. This brought about a more definite judgment of our Christmas party. In order to impress on these children the growths they had made we listed the following items on charts which they themselves could now read, understand, and appreciate:

Growths in our class during December

GROWTHS IN OUR BEHAVIOR

1. We became more polite.
2. We became more thoughtful of younger children.
3. We learned what good care the Home gives our little brothers and sisters and ourselves.
4. We learned to work together nicely.
5. We learned to be pleasant hosts.
6. We learned to plan carefully.
7. We learned to follow directions.
8. We know we can do things well if we try.
9. We want to give another party soon.

GROWTHS IN READING

1. We improved in oral reading.
2. We can find information more quickly.
3. We understand many new words.
4. We can understand directions better.
5. We like to use books to help us carry out our plans.
6. We must read correctly if our work is to be right.
7. We learned to tell the stories we read.
8. We know how to find the characters in a story.
9. We know how to find what happened to them.

GROWTHS IN ENGLISH

1. We can give our ideas more easily now.
2. We like to talk about our plans.
3. We learned polite ways to do things.
4. We know many polite ways to say things.
5. We can tell stories well.
6. We can write invitations.
7. We can write sentences telling directions for making toys.
8. We want to write our own verses for our valentines.

There were other growths in art, music, arithmetic, and in the use of tools; but to me, their teacher, the growth in appreciations and attitudes far outweighed all other results of this activity, as they were so apparent through the rest of the year. A careless, unsocial group started on its way to become a courteous, thoughtful class, anxious to achieve and interested in the welfare of other members of their school and home.

VI. A PROJECT IN MANICURING

By FLORENCE MEABROD, *Detroit, Mich.*

[NOTE.—To interest a girl in her personal appearance is not difficult. Here is one way of using this interest as a means for developing certain academic skills as well as for introducing possibilities of trade training.]

In an effort to give practical experience to a class of special B girls and to present a situation which might interest them, it seemed feasible to use a manicuring project.

Type of group: Seventy-five special B girls whose I.Q.'s ranged from 60 to 70, with chronological ages between 13 and 16 years.

Type of school: Regular elementary school.

Type of environment: Homes range from poor to fair.

Objectives:

1. Immediate:
   - (*a*) To motivate a pride in well-kept nails.
   - (*b*) To check nail biting.
   - (*c*) To correlate work with arithmetic, English, and science.
2. Ultimate:
   - (*a*) To introduce a practical trade within limits of special B girls.
   - (*b*) To give a general knowledge of the sources and uses of various products.

Time:

1. One month of consecutive work, 1 hour per day.
2. Then once a week.
3. As a special favor—on request.

General procedure: For a time during the "health-inspection" period, care of the finger nails was stressed. "Helen's were well kept." "How did she do it?" "An older sister gave manicures." "Would you like to give one another manicures?" Of course, they would. We were on the right track. The cooperation of a manicurist was secured. She

came to the school for a part of one day. We made a visit to a beauty parlor for further information.

After some inspection, two girls who were anxious to have manicures were chosen. Before the final choice was made, however, 1 or 2 possible candidates were told that their nails were too short due to nail-biting. The manicurist impressed upon them that until their nails grew, no manicuring could be done. The girls were intensely interested and paid close attention to the procedure, which was as follows:

1. File finger nails on the right hand—file in one direction.
2. Soak the right hand in warm soapy water.
3. File nails on the left hand.
4. Scrub the nails on right hand.
5. Soak the left hand.
6. Push back the cuticle of nails of right hand with an orange stick so half moons will show.
7. Scrub the left hand.
8. Push back the cuticle of nails of left hand.
9. Wash and rinse.
10. Emery.
11. Polish.
12. Use lotion to soften hands.

Materials needed:

Small nail brushes.
Finger-nail files.
Emery.
Soap.
Pumice stone.
Nail polish.
Towels (made by girls in sewing class).
Bowls and water (borrowed from kitchen).
Poster showing correct procedure.

Telephone: Through the courtesy of the telephone company, a large dial card and telephone to teach use of dial phone were secured. Directions for use of the telephone and booklets on "Story of Telephone" were also used.
Appointment book.
Toy money.

Detailed procedure: The first requisite was a manager whose duty was to hire and discharge girls and to inspect the work of the manicurists. A desk girl was appointed. Her duties, after discussion, were found to be multiple. She kept an appointment book, answered phone calls, greeted customers, introduced them to operators and helped them with wraps.

Customers made appointments by telephone and in person, conversed with operators and paid the cashier. Operators applied for work and gave manicures, following the manicure procedure. The cashier received the money and kept an account for each girl. The supply girls took care of materials.

Correlated subjects:

1. Spelling.—One of the girls kept a list of all new words. These were included in their spelling lessons. Following are some of the words learned:

manicure	telephone	soap
cuticle	nail	towels
file	polish	day of week
emery	brushes	proper names
orange stick		

2. Arithmetic.—Keeping appointment book, making change, using toy money, telling time. The girls took turns acting as desk girl, operators, supply girls, and customers.

3. English.—Much conversation took place concerning the following topics:

(*a*) Correct telephone habits: Courtesy, brevity, promptness, efficient service.

(*b*) How to use the dial telephone.

(*c*) Pleasant greeting to customers and courtesies extended.

A letter was written to the telephone company asking them to lend a telephone and other helpful material. Upon receipt of these a letter of thanks was written to the telephone company.

4. Science.—While not immediately connected with the project, our class work in science took its origin from a study of the mechanism and use of the telephone. Brief consideration was given to the chief sources and uses of each of the following: Copper, cotton, silk, gold, silver, rubber, lead, paper, tin, nickel, iron, zinc, coal, aluminum, mica, asphalt, and wool. This study was carried on in the following manner: The girls appointed a chairman, groups were formed, and oral and written reports were given. In some cases, groups prepared booklets about their subject, others prepared product maps. Two girls volunteered to go to the public library which was near their home and bring reference books for the various groups. The class had access to the


MANICURE
PROCEDURE
1 FILE
2 SOAK
3 FILE
4 SCRUB
5 SOAK
6 CUTEX
7 SCRUB
8 CUTEX
9 WASH-RINSE
10 EMERY

school library where frequent conferences were held. At the close of the study a series of questions was formulated by the group which served as a test on the actual facts they felt they should have learned.

It was gratifying to note the number (18) of nail biters who had overcome the habit during this activity. There was a noticeable improvement in general personal appearance among the entire group. The girls gained in self-confidence and self-respect. As one girl expressed it, "I feel just like I'm grown up now. I always wanted to know how to use the telephone and do things like grown people. I don't believe I'd be afraid to go and ask for a job now."

VII. BEAUTIFYING THE SCHOOLROOM

By THELMA LANGDON WELLER, *Niagara Falls, N.Y.*

[NOTE.—The teacher who finds herself assigned to a classroom that is bare and unattractive will find in this account some suggestions for improving its appearance and at the same time for developing in the children desirable attitudes toward their own homes.]

I have 20 children in my class, 7 boys and 13 girls. The chronological ages range from 9–4 to 13–2, the mental ages from 4–8 to 9–0, and the I.Q. range is from 58 to 79. The group is made up of children of foreign parentage, including 8 Poles, 7 Italians, 3 Canadians, and 1 Croatian. There is also 1 Negro in the class. The homes from which these children come are very ordinary and even very poor. Three families are receiving aid from the city, and 8 have little or no income. Five homes boast a radio, 3 an automobile, 2 a telephone, 10 a bathroom, and 5 families either own or are buying a home. An interesting fact about the class is that there are 8 children who now have, or have had, a brother or sister in the special class.

NIAGARA STREET SCHOOL

The school in which this class is located is in the foreign section of the city. There are approximately 1,300 children and 48 teachers, including the principal and vice principal. There are 3 special classes in the building. The other two classes are made up of older children, who are chronologically 13 years old and over, with the boys in one class and the girls in the other. All our special-class children enjoy equal privileges with the other children in school. Each week the children have time allotted for swimming, gymnasium, manual training, domestic science, and drawing. A half hour a week is given to the library. Each child selects a book, under supervision, and enjoys it in his own way. There is a nurse

in attendance 4 days a week. She inspects the children in each room monthly. The dental hygienist cleans the children's teeth once a year and gives two instructive talks.

While the class of which I write was being organized and adjustment was being made, we had very little with which to work. During this period our aim was to create a homelike atmosphere in school and to give the children training which would fit them for the needs of life.

DRESSING UP THE WINDOWS

Our first activity was to dress up the windows. We made curtains from unbleached muslin which cost 10 cents a yard. In a sewing lesson, the girls cut and hemmed them by hand. We included the boys in the cutting and measuring of the curtains. We learned the inch, foot, and yard in the arithmetic class and made oaktag rules with the 12 inches marked. After the curtains were properly made, a nursery rhyme character was stenciled at the bottom of each one. At the top the children drew circles to represent balloons. We spent some time discussing the color combinations to use and finally decided to use all shades in some way. The pictures were crayoned with school crayolas. Each child took part in the activity. After the curtains were colored, the girls pressed them on the wrong side with a hot iron. The boys made the rods for the curtains to hang upon. We have had several lessons in laundering and after 10 washings the curtains still retain their gay, original colors.

As supplementary work during this project we learned nursery rhymes and songs for memory work, rhythm, and music. In manual training we cut out articles and used them in several ways. Among some of the articles made were doorstops, jointed characters of nursery-rhyme fame, book ends, and shade pulls. These articles were used as gifts for the homes and decorative purposes in school. For free expression in form and color, we made scrapbooks of drawings. These were all original and depicted the rhymes in various ways. For seatwork, the children made puzzles by cutting up pictures pasted on oaktag.

DECORATING TABLES AND CUPBOARDS

Our second project in beautifying our schoolroom was to make our tables and cupboards more attractive. We cut pieces of brown burlap for our two tables. Each end was fringed by the older girls. Then, in a drawing lesson, we drew a border of flowers on each end. These were colored with bright crayons and outlined in black. From this we became interested in flowers and had several lessons on the different kinds of flowers, their life, growth, and use. Immediately the children brought plants and slips from home. We have a geranium, a strawberry plant, a foliage plant, a cactus, babytears, and several vines. Some of them were rooted in school. Our crocks and jars now needed decorating, so we spent some time discussing color combinations. Several jars we painted white and then dipped them into mixed enamel colors floating on water. Other jars were painted in one color with gold or silver sapolin blown on while the jar was wet. Still other jars were covered with gay linings from envelopes. The crocks were enameled a neutral color. Since the children had brought so many plants, I brought two goldfish for them. Each month some child takes over the entire care of the plants and fish. The children enjoy this responsibility and learn to care for plant life and also to protect it. We have many discussions about the goldfish and know their habits and mode of living.

MAKING NEW CUPBOARDS

We soon decided that we needed more cupboards. The boys brought two orange crates which we nailed together, one end to the other, to resemble a pier cabinet. It was stained brown and trimmed with orange. One of the girls wove a bright-colored yarn scarf on a tyndall loom for the top. A boy made a bowl-shaped basket which we try to keep filled with flowers. The cabinet is within easy reach of every child and makes a fine place for games, puzzles, picture books, and logs for building. This project gave us an excellent opportunity to study the orange industry. We took up growth and cost of the fruit and its benefits to mankind. When the pier cabinet was finished, one of the boys made a small corner cupboard for the opposite corner. It is painted orange and displays two fine clay pieces made by the children.

DECORATING THE WALLS

Some one soon suggested that the walls and bulletin board needed decorating. We planned to use the bulletin board for colored pictures whose scenes depicted certain months. For instance, during March, we used Dutch pictures. Each month the pictures are mounted alike on colored construction paper. Two children take charge of the bulletin board every month. In one corner of the board we keep a calender which is marked daily according to the weather. We also note birthdays on it. In manual training the boys cut pieces of basswood 8 inches long and 5 inches wide. These were painted black or brown. The girls then cut and pasted green grass and stems on the board. Colored surprise cuts made gay flowers for the stems. Leaves of green were added last. A coat of shellac kept the paper clean and made a lovely wall placque for some places between the windows.

FITTING UP A BEDROOM

The last project was a doll's bedroom made by the whole class at very little expense. This activity was very closely related to home life. A doll's high chair and a doll were donated by one of the children. Soon after that one of the boys said he could make a doll bed. We made a pattern from paper first, and then cut it from wood with a coping saw. A small doll's cradle was made from the wood left from the bed. The highchair, bed, and cradle were enameled white and decorated with colored flowers. We made a dressing table by nailing two chalk boxes together, side by side. A piece of flowered cloth was ruffled and tacked over the box. A bench, similarly covered, was made of the box covers. I bought a small mirror to hang over the dressing table. The girls had many lessons in sewing, making mattresses, pillows, cases, sheets, blankets, and spreads. The boys made yarn rugs from spool knitting and on tyndall looms. The girls enjoy putting the dolls to bed every afternoon and dressing them in the morning. Through this activity we also have training in laundering, cleanliness, and health.

RESULTS

The results of this work are very gratifying. When I call at the children's homes, they are proud to show the cupboards they have made, the jars decorated, and the pictures they have constructed. One girl, with the help of her parents, made a dressing table for her room. The children have taken gifts home at various times, which the parents seem proud to display. Among these gifts are flower-pot mats made from inner tubes, stuffed animals made also of inner tubes, pot holders, enameled jars, and boxes. Furthermore, I notice the child's great hesitancy when the rooms are disorderly and the family unkempt. They all make apologies as do some parents, when things are not clean and neat.

VIII. TOY TELEPHONES

By Annie Dolman Inskeep, *Berkeley, Calif.*

[Note.—"What's the use of learning the alphabet?" is a query that every teacher needs to answer for herself and for her children. To the mentally retarded child the use of rote memory is of greater importance than to children of normal reasoning ability. But to none of them does the alphabet stand for anything except as it is used in practical everyday situations. In the activity here described the telephone is introduced as a means of lending interest to the tasks that confront the child in these daily problems.]

"What's the use of learning the alphabet?" droned John.

"It's too hard anyway", piped up Mary.

The hand-waver in the backseat declared he could say his letters in 1 minute and confided to the room that Granddad had licked him every day until he could.

So it is in many a special class when the teacher attempts to enlarge and make more accurate language concepts by having a word looked up in the dictionary. This one, by courtesy called an adjustment class, consisted of 18 boys and girls whose I.Q.'s ranged from 61 to 105. (This last one was there temporarily because he had an almost complete reading disability.) The majority tested between 65 and 75 and their chronological ages ranged from 11 to 13 years. It was the senior class of its type in an elementary school of some 600 pupils and attempted to cover the minimum essentials of the fourth, fifth, and sixth grades. Often, though, it seemed as if the emphasis turned out to be on the minimum rather than on the essentials.

The day on which the alphabet fell by the wayside the teacher went home and carefully thought over the values arising out of knowing the alphabet. Then suddenly the activity that would not only fix the alphabet but would also help the children to learn to spell, to copy accurately, and would give them almost unlimited oral language work in socialized situations sprang forth full grown like Athene from the brain of Zeus.

The children of this adjustment class, though some of them came from distant parts of the city, were practically

all from very modest homes or low-rent apartment houses. Their fathers, when employed, were carpenters, plasterers, truck drivers, small store clerks, etc. The mothers, when the families were not too large, often worked part of the day. In the majority of the homes there were telephones or use could be made of that of a neighbor. So why not have a telephone activity?

The next morning the teacher had a telephone directory and a copy of the simplified dictionary used in the fifth and sixth grades placed on the table devoted to "something new each day." Someone discovered that the names in the directory were in the same order as in the dictionary. Soon various children wanted to look up their own or a friend's name in the telephone book. It developed, as will often be found, that these children by themselves seldom if ever complete the whole process of telephoning. Perhaps they could not find the number. Often, if it were given to them, they were so inhibited by fears or complexes that they did not know how to address central, or what to say on getting the party called for.

Would they like to learn how to telephone? Much enthusiasm and the attitude that makes a real learning situation appeared on every side. Two things to start with were necessary: telephone directories and toy telephones. Children offered to get discarded books from home, to ask neighbors for them, and one boy, whose father worked for the telephone company, secured several.

About 12 of the 18 children in the group participated in securing enough telephone directories so that each child had one. The whole group took part in discussions about why new telephone directories were issued, what became of old ones, the hygiene of clean books, etc. These questions arose for the most part in the weekly "free question period." The teacher and the children together read the "General Information for the Guidance of Telephone Users."

Toy telephones were made by the boys of the class during their shop-work periods. A wooden wheel of about 4 inches in diameter, such as was supplied for little wagons, formed the base of the stand telephone.[1] A 10-inch piece of three-quarter-inch dowel was fastened to the center of the wheel.

[1] Where the dial system is used the dialing numbers can be pasted on the wheel.

A 2-inch piece of the same kind of dowel was fastened at the top of the first piece so as to form a right angle. On this was placed as a mouthpiece a wooden core such as comes in large rolls of wrapping paper. Another core, as a receiver, was hung by a cord and screw-eye to the side of the upright dowel.[2] The telephones were painted black. When finished every child had his own (for sanitary reasons), and there was an extra one, with a paper cover over the mouthpiece, for "central."

While the telephones were being made, the class looked up in the telephone directories names of their own choosing and wrote the names, addresses, and telephone numbers in their language blank books. Sometimes at their own request this was done under time pressure. This work became an immediate incentive to know the alphabet in a more usable form; to know what letter came before or after a certain letter, how to judge about where to open the telephone directory or dictionary so as to be as near as possible to the letter wanted and not waste time in fumbling. The children were led to consider why certain names in the directory and certain words in the dictionary were at the top of each page. A game was made of finding out who could open either the telephone book or the dictionary nearest to, for example, the t's. Their efforts in looking up some well-known store or other agency were timed by a stop watch and the results noted on their graph cards. Each one was encouraged to improve his own record.

Then arose some wonderfully fine motivated situations. One child would act as "central", someone else would be the telephone girl in the health center. Other children in the class would telephone for information concerning such appointments as they frequently really had with the dentist or nurse at the center. Sometimes the lesson setting took the form of a large department store, children acting as "central", the store exchange operator, and the special department clerk. The members of the class began voluntarily to study prices in window displays, to ask at home about the cost of food so as to be able to order the correct

[2] Each child in the class had written a letter to a large neighborhood laundry asking for the wooden cores. The children asked if they might choose the best letter by secret ballot. They also chose a boy who knew one of the employees of the laundry to deliver the letter which received the most votes.

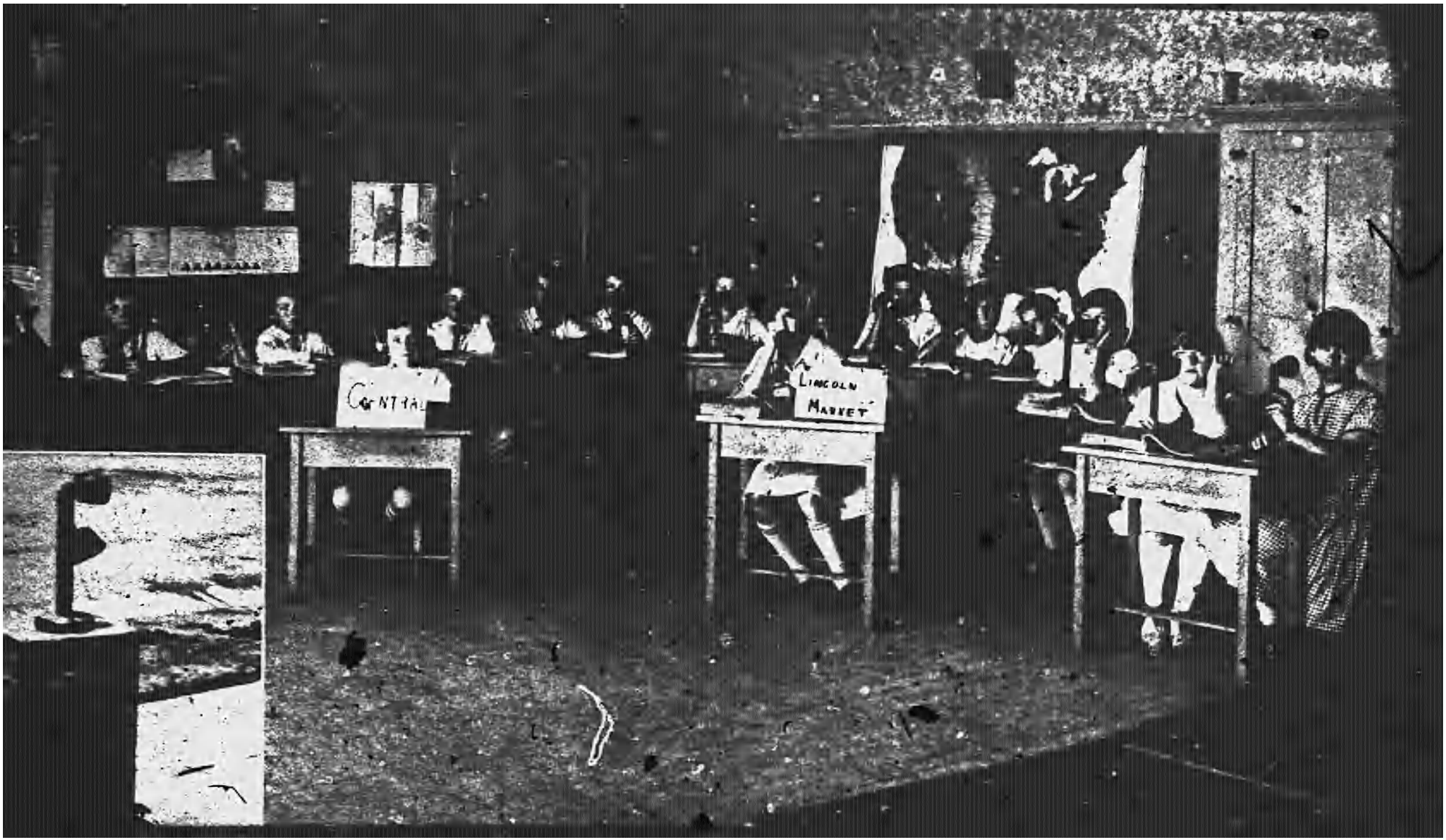
amount of what the family really used. As Christmas approached it was surprising how much knowledge these children displayed of current prices when inquiring about or ordering holiday goods over their toy telephones.

At other times some child called up each member of the class inviting the playmate to a party he was going to give. Again the local movie was called up to find out what show was on. The railroad depot was asked when a certain train bearing friends was expected in. Police were called, fire alarms were sent in correctly via toyland phones. Telegrams were sent by telephone. The children enjoyed making 10 spaces on paper and writing in 10 or fewer words a situation they imagined which made it necessary to send a telegram. Long-distance conversations were carried on. These were carefully timed and the cost computed.

Throughout these and other socialized situations correct telephone procedures were always insisted upon by the children themselves. Central said "Number, please", the child telephoning talked distinctly, repeated without show of feeling when requested to or when a wrong number was obtained. In ordering from a store the child learned not to say first thing, "I want", but "this is Mrs. ——, —— Street" (his mother's name and address), and then to give his order. Children who were at first afraid to talk into a telephone became oriented to terse, polite, accurate telephone procedures. Of course looking up words in the dictionary or topics in the children's encyclopedias became a fascinating game rather than haphazard drudgery.

Probably all teachers of special classes will agree that oral language is of paramount importance to special-class children. If they can explain their needs, ask for their wants, express themselves concisely and accurately, they are traveling one of the roads to economic success.

This activity utilizes situations that will arise in the lives of most children and includes among its probable outcomes: Adjustment to social and business situations, some oral and written language facility; accurate copying of names, number, and other material; some interest in prices of common commodities; and such valuable attitudes as attention, patience, and poise.


LINCOLN
MARKET

IX. HOW WE SEND AND RECEIVE MESSAGES

By Gladys Nofziger Fager, *Pasadena, Calif.*

[Note.—A study of communication is exceedingly rich in possibilities for developing social concepts. Mentally retarded children need every possible experience which will help to put them in touch with the lives of other people. The account here given tells how this was done in one particular situation.]

The study on communication was chosen by a special study group in a Pasadena elementary school. There were 15 boys and 3 girls in the class, ranging in ages from 10 to 15 with I.Q's between 65 and 80. The school had an enrollment of approximately 800 and included all grades from kindergarten through the sixth. There were 2 special study rooms—a primary class for children below 10 years of age and an elementary group for the older children.

The community is composed of homes of the lower middle class. The pupils in this special group were generally from poor homes. In most cases the father and mother were both employed and there was little time to visit school, but they had a friendly, cooperative attitude toward the work.

With the support of the principal, the special-class supervisor, and the teachers in the building, no discrimination was made between the children of the special class and others enrolled in the school. They took part in the school activities—athletics, dramatics, and student government. They visited other special classes in the city where experimental work was being done with normal and with gifted children and they felt as though they were a part of an interesting experiment.

An activity period in this classroom was a busy scene with children moving about freely, each intent on his task. The following episodes are typical:

John stood perched on a box at a window where he had been inspecting a wire.

"Well, it's not the aerial!"

"I can't understand why we couldn't even get a squeal this morning. The radio had been working so much better since we lengthened the aerial."

The door to the outside corridor was flung open and Louis entered exclaiming, "I found it. Someone swiped our ground again but I attached a new wire to a faucet hidden by some shrubs. They won't find it now. Come on; let's try the radio."

In one corner of the room a colored boy and two white children were preparing a little play about Samuel Morse. A rather heated debate was ensuing.

"No; that's not right."

One boy produced a book. "See; the message he sent was, 'A patient waiter is no loser.'" The argument was settled and the youthful Samuel Morse was intently clicking the message on a telegraph set of his own making.

At a small sewing machine a girl sat repairing the strap to her work apron. Another girl was seeking help from the teacher on a puzzling arithmetic problem. Some of the children sat in groups at large tables while others preferred small individual tables. The room was informally furnished with movable tables, chairs, and work benches. Here teacher and pupils worked together as copartners.

We practically stumbled on the subject for study during the first morning of the new term. The children were gathered in a group recalling experiences of the year before in the study of transportation. They were discussing automobiles.

"Say, I saw a police car yesterday that had a radio in it and the policeman was listening to a message as he drove along."

"Why, just the other day there was a bank hold-up on Broad Street. They broadcast a description of the men and car to the police cars, and they caught the robbers before they had driven four blocks."

"The police cars in all the big cities are going to have radios now so that they can get messages from police headquarters quickly."

TEACHER.—"Would you like to find out about the different ways we have of sending messages?"

This met with an enthusiastic reception and such exclamations as these were heard:

"Then we'll learn about telegraphs!"

"I know a fellow who has a telegraph set at home."

"My father works for the telephone company. We could go there and see lots of things."

THE OUTLINE OF WORK

The following is a brief outline of the subject matter as it developed during the year's work:

PART I.—How do we send and receive messages today?

1. Four systems using electricity:
   - (*a*) Telegraph.
   - (*b*) Submarine cable.
   - (*c*) Telephone.
   - (*d*) Radio (wireless).
2. The postal system—sending mail by train, boat, and airplane.
3. Signals:
   - (*a*) Semaphore system.
   - (*b*) Code flags.
   - (*c*) Wigwagging.
   - (*d*) Heliographs.
   - (*e*) Submarine signals.
   - (*f*) Bells and whistles.

PART II.—How were messages sent and received in the past?

1. Beacon lights and signal fires.
2. The runner.
3. African drum.
4. Homing pigeon
5. Stage coach.
6. Pony express.
7. Famous rides.

Throughout the study the teacher kept the following objectives in mind:

1. HEALTH:
   - (*a*) Physical and mental freedom promoted by informal work and room arrangement and by a friendly spirit as teacher and pupil worked together.
   - (*b*) Good mental health encouraged by setting noncompetitive individual standards.
   - (*c*) Better muscular coordination developed through manual activities.
   - (*d*) Opportunity for complete relaxation given in a daily rest period.

2. Character Building or Training for Citizenship:
   (a) Responsibility, dependability, and initiative stimulated by greater mental and physical freedom.
   (b) Personal satisfaction attained in accomplishing tasks which met individual interests and abilities.
   (c) Perseverance inspired by reading of the struggles and discouragements of successful inventors.
   (d) Increased interest aroused in other nations and peoples.
   (e) Right attitudes toward public services formed by building up a social consciousness.
3. Knowledge and Appreciation of Subject Matter:
   (a) Importance of inventions in modern life.
   (b) Realization of the smallness of the world as a result of modern methods of communication.
   (c) Pleasure derived from the stories of the romance of communication.
   (d) Improvement in tool subjects—mechanics of reading, English, spelling, arithmetic, and writing.

ELECTRICITY AND MAGNETS

Each morning the class met in a group to discuss problems, to outline plans of work, and to give reports on research work (elementary, of course). They decided in one of their discussion groups that they would first take up the study of messages sent by electricity. The teacher wrote on the blackboard some experiments dealing with electricity. The children eagerly tried these and added others.

Someone said, "Why, electricity works like a magnet, doesn't it?"

"I can bring a magnet from home."

For the next few days excitement was keen as they worked simple experiments with magnets and electricity.

They kept written accounts of their experiments and research work in individual record books. Later they compiled a class yearbook from these articles.

A 10-year-old, I.Q. 69, wrote:

"We tried to see if the magnet would pick up nails. It worked O.K. We tried to pick up other things. We weighed the things. They weighed a half pound. We like to play with magnets."

Edward, 11 years old with an I.Q. of 74, wrote on How to Make an Electromagnet, as follows:

"We got a spike and wrapped the wire around the spike. We attached one end of the wire to the center terminal of

the battery and the other end to the outside terminal. The spike picked up a big pile of nails. We took the wire off of the battery and all the nails dropped. The spike was a magnet when it was attached to the battery."

TELEGRAPHS AND CABLES

The children constructed simple telegraph sets. Wires were stretched in all directions connecting sending and receiving instruments. Efforts were made to send the Morse code, and some in the group worked out simple codes of their own. When sets became quite numerous, it was decided that a committee should regulate communication and determine the best hours for sending messages, so that lines should be closed part of the time.

Billy writes about an important event, "A Real Telegram":

"We received a telegram. It was from Miss Brown. We were going out for physical education and a messenger boy was coming up the stairs. When we came in the room we found we had a telegram. It was the first one we had ever received. We knew it had come through the new kind of a telegraph machine because the message was pasted on."

Louis visited the telegraph office and brought back a sectional model of a submarine cable. Questions like the following were raised:

What are the materials used in the cable?
From where do they come?
What is the purpose of each layer of material?
Where are cables laid?
How are cables laid and repaired?

The class wrote a play about the laying of the Atlantic cable. This included many details about the struggles and ultimate success of Cyrus Field. A large picture map was made showing the sections of the cable, materials used, countries and people involved. There was much letter-writing to secure the information.

THE TELEPHONE

One day one of the boys announced that his father would make arrangements for the class to visit the branch telephone office if they wanted to go. The class came back from the trip eager to talk about what they had seen.

"I liked to watch the operators at the long-distance switchboard. I saw little green lights. Someone was making a telephone call. When the lights went on, the operator pushed a little plug into the switchboard to connect the person calling with the one he wanted to speak to."

"Can an operator listen to your conversation?"

"They should not. There is a fine for doing it."

"It isn't right for us to listen in when another person is on our line."

"No; and people shouldn't talk so long over the telephone when it isn't necessary. Some one might need the line badly."

The class thought it desirable to know the telephone number of the police and fire departments. Several days later one of the boys had a chance to make his knowledge practical.

He reported: "Last night I was making a kite. A large fire was in back of my house. I ran to the telephone and called the fire department. They came and put out the fire."

"Why can't we make a still film about the telephone like the one we made last year on transportation?"

The children had been saving from the newspapers colored historical pictures about the telephone. Some insisted that the colored pictures could be transferred to the roll of paper for the film. They brought wax and for several days tried to transfer them by rubbing wax on the reverse side. The children were not satisfied with the results and finally one of the girls said, "Let's draw our own pictures." When the film was finished on architect's vellum, the children never tired of seeing it projected.

A moving-picture film on Communication loaned by the General Electric Co. was greatly enjoyed, although parts of the film were too technical for the group.

THE RADIO

John, our radio fan, entered the room one morning carrying a "C" battery and several "B" batteries. "These are for our radio", he announced. The next day a loud speaker was brought by another member. Parts of an old set were donated by the teacher. Several children brought tubes to try out. One boy brought a very good crystal detector. The boys admired it but explained that crystals were not used in sets of this kind. They decided then that they would make a crystal set later.

Imagine the joy when the radio first operated!

"May we ask Miss Martin's room in to hear it?"

"I'm going to ask Mr. Smith to come in for the Standard Symphony Hour."

"Let's write to Miss Brown and tell her about it. Maybe she would like to hear it."

"I've brought the radio news. We can look it over so we don't miss anything that's good."

The radio was one of the most interesting activities of the year. After a visit to the local broadcasting station, one corner of the classroom was transformed into a studio with an imitation microphone. Groups of the children broadcast weekly programs which took the nature of a review of the subject matter they had covered during the week.

THE POSTAL SYSTEM

Many activities grew out of the study of the postal system, some of which were:

1. Visiting the post office, where the postmaster showed how the letters were sorted into pigeonholes.
2. Collecting stamps.
3. Writing and addressing letters correctly.
4. Sending money orders.
5. Shop [illegible]-making models of airplanes, trains, and boats.
6. Mapping air-mail routes.
7. Weighing and figuring costs in sending packages to different places.
8. Comparing length of time required in using different methods of sending mail.

When the Western Air Express opened its first transcontinental air-mail route one of the boys remarked, "I wish I could have one of the stamps from this trip for my collection."

"Let's send a letter to ourselves and see what happens."

The letter was sent and later the class received an envelope addressed in a familiar handwriting. They were jubilant when they saw the large seal the letter bore. It was treasured and safely preserved in one of the stamp collections.

SOME COMPOSITIONS

Several articles written for the class yearbook are given below to show how this unit brought out an appreciation of the usefulness of the inventions in ordinary life.

HOW AN OCEAN CABLE IS IMPORTANT

"If you never send a message or receive one, they are still important because you get all the news. An ocean cable is important. If you were to get the news by boat it would be over a week old, and the news would not be any good. So you see it would be hard to get along without a cable."—Written by J. B.; C.A. 15; I.Q. 70.

THE TELEPHONE IS OUR BEST SERVANT

"The telephone can be used in case of fire. If you do not know the number of the Fire Department call an operator and say 'Fire Department, please.' If there is someone hurt in an automobile accident, you can call operator and say 'Emergency' and the ambulance will be there in a minute."—Written by J. L.; C.A. 12; I.Q. 80.

WHY WIRELESS IS SO IMPORTANT

"A long time ago during the World War, the enemy destroyed the cables used in sending messages. Marconi had invented the wireless and since the enemy could not destroy it, the wireless came into use more than ever."—Written by L. C.; C.A. 13; I.Q. 75.

INDIVIDUAL PROGRESS

Some significant values of this unit may be indicated through the progress made by the different individuals.

L. C. was a poor reader, yet because of his interest in the subject matter involved in this study he would work untiringly to prepare reports for the class. Whereas previously he had been lacking in dependability, this became one of his stronger traits as he realized the group was depending on him when he volunteered to work on a subject.

J. B. found spelling very difficult; consequently he seldom expressed himself in writing. It was a task to write even a few lines. By the end of the term he was writing letters for information and answering advertisements not only for the benefit of the class study but on other subjects which he found of interest. He was intensely interested in radio, telegraphy, experiments with electricity, and woodwork. He had some special ability along these lines and his initiative

was developed as he took the lead in gathering information from outside sources. His knowledge of arithmetic was scant, he could not retain the multiplication tables, yet he learned to use them. He made drawings to scale and was very accurate and precise in his woodwork.

When G. S. entered the room from another school, he was so self-conscious that he never ventured to express himself before a group. Due to the informality of the room and the freedom allowed in pursuing work, he gradually overcame much of this. He learned to enjoy a group discussion. He surprised the class one morning by jumping up as the group was disbanding and saying, "Wait a minute. I haven't had my turn." A feeling of confidence in himself grew, and he was able to accept responsibility for tasks that were increasingly difficult.

D. K. had never liked school. When the children found that she could print unusually well and could easily manipulate the hand-powered sewing machine, she was constantly in demand for certain tasks. Her entire attitude toward school changed.

The twins, A. W. and L. W., had been described by their previous teacher in a regular class as "silent partners." She had never heard their voices, and neither she nor the other children knew them apart. After entering the special class, they were asked to dress differently, a plan which they readily agreed to. They soon had their mother interested and helping out. Their lost identity was regained. When they were allowed to pursue work in which they were interested, they chose very different activities and were both very talkative about the things they were doing. They had been afraid of competition, and when this strain was relieved they began to function normally.

J. L.'s writing was an index to his personality. It was a nervous, jiggly, cramped scrawl. He was so slow that he never got anything written. He responded, though rather slowly, to the informality of the room. With a feeling of ease and relaxation came an ease in writing. His handwriting became large and free. Both his written and oral accounts of activities and experiments became unusually clear and interesting. They were given in great detail.

SOCIAL EXPRESSION

The class was entertained by an experimental group (normal children) in another school. They, in turn, had this experimental group as their guests for one morning. They worked their experiments for the visitors and showed the things they were making. The preparation for this event afforded an opportunity carefully to summarize and evaluate their work. A short play period with organized games followed this program. These experiences helped greatly to strengthen their self-confidence and to eradicate any stigma which is so easily attached to such a class.

The class also demonstrated their work to a group of special class teachers from the city. Other smaller groups were similarly entertained during the term.

When the work of the year was finished, the query "What shall we study about next year?" was frequently heard,—an indication that the satisfaction created by this activity was a vital force which would carry forward and mold the attitudes of the children toward the work of the coming year.

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X. UNITED STATES MONEY

By Curriculum Committee of the Auxiliary Department,
Kalamazoo, Mich.

[Note.—The knowledge of the value and the use of money constitutes a very practical necessity in the life of every child, be he normal or retarded in his mentality. There is no better way to secure his interest in the subject than through a class activity that will give him the opportunity actually to handle money himself as well as to hear and read about its place in the life of the people.]

The study of United States money is one of particular value to the retarded child, as he gets from it a knowledge which he is not in a position to get incidentally and which functions in life situations. The unit is strong in language and in arithmetic.

Objective.—To learn the value of the various kinds of United States money and the methods used in making it.

Type of group.—This activity was worked out with 18 mentally retarded children ranging in chronological age from 9 to 16, and in I.Q. from 50 to 70. They were divided into three groups as follows:

5 in the upper group (D).
8 in the intermediate group (B-C).
5 in the lower group (A).

Time devoted to the activity.—Three weeks.

Procedure.—Several days had passed since the pupils had completed a unit. There had been several suggestions for new ones, but none which the entire class was willing to accept. We were about to put the matter to a vote when one of the pupils in a group who were reading "The Story of Wampum" said "Why don't we study about money? There's some sense in that." This idea met with the approval of all and was acted upon at once.

Outline.—The following topics were considered:

I. Early mediums of exchange:
- A. Wampum.
- B. Skins.
- C. Birds' scalps.
- D. Fishhooks.
- E. Cattle.
- F. Grains.

II. Metal coins:
- A. Government assay offices.
- B. Government mints.

III. Other currency:
- A. Checks: Personal checks and bank checks.
- B. Drafts.

IV. Sending money by telegram or cable.

Materials used.—The first thing we discovered in this activity was the scarcity of pictures to illustrate our subject. We wrote to the Department of the Treasury at Washington and found that it is no longer permissible to take pictures illustrating the processes by which United States money is made. However, some interesting and helpful publications were sent us from this source and are listed in the bibliography. Other materials collected included coins of the United States and of other countries; paper money of the United States and of other countries; shells used for wampum; small loom for weaving wampum belts. All materials were placed on a table for display. The coins and paper money were arranged in frames under glass and were locked up each night. The coins were also used in games designed to develop sense training.

SUBJECT ACTIVITIES

1. *Spelling.*—From the outset words entirely new to the pupils were introduced. Since they wished to understand them, we started a vocabulary list, to which words were added from time to time. These, together with words frequently misspelled and those with which help was requested, made the basis of our dictation lessons. The following lists show the words used with each group of children, together with the Thorndike frequency index (F.I.) for each word:[1]

[1] According to the frequency ratings given by Thorndike in his "Teacher's Word Book", the figure 1 appearing after a word indicates that with reference to frequency it is included among the *first* thousand words used in life; the figure 2 indicates that the word is included in the *second* thousand words; etc.

Group D

	F.I.		F.I.
Shilling	7	Readily	4
Fortune	2	Difficult	3
Fifty	--	Common	1
Hundred	1	Office	1
Thousand	1	Officer	1
Million	2	Permit	2
Govern	3	Business	1
Government	1	Determine	2
Examine	2	Resolve	3
Tobacco	3	Factories	3
Wampum	7	Expensive	4
Beaver	6	Currency	--
Reign	2	Wood pulp	1, 7
Younger	1	Linen	2
Quietly	1	Instead	1
Overalls	7	Private	2
Question	1	Secret	2
Color	1	Ridge	3
Permanent	4	United States	1
Durable	7	Melting	2
Valuable	2	Acid	6
Massive	8	Worn	2

Group B-C

	F.I.		F.I.
Dollar	2	Copper	2
Cents	1	Mine	1
Sent	1	Banker	5
Sense	2	Fortune	2
Check	2	Water	1
Mint	6	Asked	1
Pure	1	Bread	1
Furnace	3	Stove	1
Metal	2	Grain	1
Quarter	1	Wheat	--
Nickel	4	Basket	1
Crimson	4	Mountain	1
Magic	3	Priest	3
Money	1	Printing	1
Purse	2	Eagle	3
Pocketbook	10	Thought	1
Silver	1	Sorry	2
Obey	2	Made	1
Piece	1	Stopped	1
Gold	1		

Group A

	F.I.		F.I.
Bank	1	Good	1
Dime	4	Funny	3
Penny	2	Face	1
Quarter	1	Nose	1
Hand	1	Eyes	1
Land	1	Mouth	1
Jump	1	Have	1

2. *Reading.*—While hunting for material pertinent to our subject, the children of group D found the story of "Jason and the Golden Fleece" and asked to study that. The remainder of their reading was taken from "Lessons in Community and National Life." "Uncle Sam's Secrets" was found to be so full of interesting and worthwhile information that those parts which deal particularly with the coinage of money were rewritten and given to groups D and B-C for informational reading. Group B-C also read the "Golden River." Group A used the Bolenius Primer which contained nearly enough material for the duration of the unit. Short stories composed by the children were placed on the board. This furnished language practice as well as reading. The following is an example of this work.

I made a bank.
Fred and Ruddy made a bank, too.
My bank has a head.
My bank has a nose.
My bank has two eyes.
My bank has a funny face.

3. *Language.*—The work in group D consisted of oral discussions and reproduction of "Uncle Sam's Secrets." Stories were written on the following subjects: "A Visit to a United States Mint"; "A Story of Ancient Times"; "Studying about Money"; and "Substitute for Money."

Group B-C wrote two stories, "The Life of a Penny" and "How I Made My Bank", both written in the first person. In addition to these they composed original rhymes. Each child wrote three or more. Examples are:

If you can tell the time,
I will give you a dime.

I asked my father for a dollar,
To buy myself a nice new collar.

Smokey is a very funny man,
He drives the fire truck with one hand.
He puts his money in the bank
And hears it go, "clink, clank, clank."

Group A made up oral stories which were written on the board and read. Later they were copied by the children.

4. *Arithmetic.*—There is such an abundance of material for this subject that little need be said about it. Since every business transaction involves currency, it only remains to fit the work to individual needs of the pupil. Group D, in addition to those problems in which cost and change were computed, learned to write receipts and checks and to endorse checks. They discussed the various ways by which money could be sent from place to place.

Group B-C received practice in fundamentals, using the dollar and cent signs in each. Group A learned to indicate cents, using the zero and decimal point, and they continued their work with the multiplication tables.

5. *Social science.*—The history of money and the necessity for constant improvement in the monetary systems of this and other countries furnished topics for interesting discussions. Maps were used to locate the assay offices, the mints, and the Bureau of Engraving and Printing. A map of mineral products was used to locate the gold and silver sections of the country. The routes from mines to assay offices and to mints were traced on the political map.

6. *Handwork.*—This unit furnishes little handwork. However, all the children made banks. They received their inspiration for these from the story which group A was reading in the Bolenius Primer, "Riddle, Riddle, Rantum." Powder boxes painted to represent a darky's head were mounted on wooden shoulders attached to a wooden base. A brightly colored shirt and tie added to the effect. A slit in the back completed the bank. Some of the children made dime savers from small boxes, and one boy made a bank in imitation of a grandfather's clock.

7. *Visual education.*—A political map and a relief map of the United States, accompanied by pictures, helped the children to visualize that part of the country in which mines are found and to see the advantage of placing the assay offices in existing locations.

A loom with a bit of wampum weaving set up in it, also some shells similar to those used by the Indians as wampum, were a source of interest and instruction.

Coins, paper money, blank checks, and drafts helped to maintain interest and acquaint the pupil with various forms of currency.

8. *Special activities.*—Coins of different countries were placed on a table and the pupils given ample opportunity to observe and feel them. One of their number was then blindfolded and a coin placed in his hand for identification.

Another sense-training game was played by placing the coins as before, giving the pupils a chance to observe them, then removing one or more of the coins. The child who could name the missing coin was allowed to arrange the coins the next time.

The unit closed with an assembly in the room. The children read aloud the stories and rhymes they had composed and played sense games with the coins.

ATTITUDES ACHIEVED

1. A renewed interest in thrift was shown by an increase in the number of children banking in the school bank.
2. Children made a greater effort to conserve school materials, such as paper toweling, crayons, etc.

TEST USED AT THE CONCLUSION OF THE ACTIVITY

1. Name three ways of mining gold ———, ———, ———.
2. When metal is taken from the mine it is called ———.
3. The place where coins are made is called a ———.
4. The Bureau of Printing and Engraving is a ———.
5. Give an example of bartering in modern times ———.
6. A Canadian dime is worth 10 cents in Michigan, Wisconsin, or Minnesota, but it passes for only 8 cents in St. Louis, Mo. Can you explain why? ———.
7. What coin is called an eagle? ———.
8. What is a half eagle? ———.
9. What is a double eagle? ———.
10. How many eagles in $100? ———.
11. Whose portrait is on our newest penny? ———.
12. Name six United States coins ———, ———, ———, ———, ———, ———.
13. A goldsmith is one who ———.

Fill in the blanks with the true words

1. When gold and silver are taken from the mine they are called ———.
2. The place where gold and silver are coined is a ———.
3. The word that means to mix metals is ———.
4. Gold was discovered in California in the year ———.
5. Three fourths of a dollar are ———.
6. A shilling is worth ———.
7. Pence means ———.
8. United States mints are located at ———, ———.
9. Three ways of mining gold are ———, ———, ———.
10. The man who went after the golden fleece was ———.
11. People prefer using paper money rather than gold because gold is ———.
12. Two ways of sending money to foreign countries are by ———, ———.
13. A person who makes false money is a ———.
14. A penny is 95 percent copper. What percent is alloy? ———.
15. United States assay offices are located at ———, ———.
16. A rim is stamped on a coin to ———.
17. To separate the ore into its parts and examine the parts is the business of the ———.
18. You may send money anywhere in the United States by ———.
19. When a coin is badly worn it is ———.
20. The first weights used in weighing small objects were ———.

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XI. A NATURAL HISTORY MUSEUM

By JULE B. DAVIS, *Battle Creek, Mich.*

[NOTE.—Nature is a living challenge to the interest of the retarded child if the introduction is made in the right way. Abstractions or generalizations from afar do not appeal, but close contact—seeing and handling the objects themselves—is a concrete means of approach that rarely fails to arouse interest in the life about him.]

My special room for mentally retarded children has an enrollment of 19, 7 of them Negroes. They range in chronological age from 6 to 11 years, and in mental age from serious defectives to those with intelligence quotients as high as 85. However, most of them have intelligence quotients between 60 and 70. There are 12 boys and only 7 girls.

The school as a whole consists of a kindergarten and grades 1 to 6, inclusive, with a total enrollment of 330. The teaching staff includes the principal and 11 teachers. The school system is very progressive and tolerant, giving each teacher enough latitude to solve her own problems. The location of the school is such that it draws children from the poorest homes in town, and my children come from the least desirable of these poor homes. Little, if any, attempt is made to teach them honesty, truthfulness, fair play, or cooperation. Of course, initiative in school is totally lacking, since in other rooms brighter children always took the lead. This lack of initiative, coupled with the fact that there was little or no reading ability apparent, necessitated a great deal of guidance and help.

In guiding the children toward a project one very significant fact influenced me. Before this year, this school had no special room for the lower grades, hence all of my children came to me from regular rooms, where they had either failed continually or had been promoted because of their age. The children having experienced nothing but failure, I felt that the most important point was to have an activity that would be familiar to the children, that would be easy for them to comprehend, and thus would lead to success. I hoped that success in one activity would breed a healthy attitude toward work, and that it would be a beginning in securing a better

attitude toward all desirable habits. I hoped also to stimulate an interest in the skills, especially in reading.

I tried through the usual methods to find out where the real interests of the children were centered, watching their reactions to pictures which I showed them, to stories which I told or read to them, and to various articles which I placed around the room, such as dolls, doll dishes, lumber, paint, etc. They were rather bored with these things, however. They had similar activities in other rooms; it all spelled inferiority and failure for them. Any trip out of their own immediate environment seemed to bewilder them with its complexity, making them want to come back to school.

The children themselves, as might be expected, solved the problem for me. They began bringing in fall leaves. I had been encouraging them to keep our room attractive. Then, sensing my interest in their contributions, they began bringing everything they could find. They brought things from the river and river banks, from woods, from vacant lots, from any place and every place. Finally, one boy brought a fossil of a bee-hive. The children seemed quite interested, so I explained in simple words and with the aid of pictures how fossils are made. Because this was close enough to their own daily life to be familiar and yet had a novel slant, the interest of the whole room was aroused. Here was my unit of work.

My first step was to pay a visit to our very excellent city museum, where I made notes on the things which were common enough to be fairly familiar to the children. Then, after gathering suitable pictures from every available source, I began to tell the children about the interesting things one could see in our museum, leading them very slowly from the known and extremely familiar items to the unknown and interestingly new things to be seen. All encouragement was given them to bring in any of the things we had talked about or, better still, articles that had not been mentioned or items of information.

Soon my work was rewarded by hearing one child express a desire to visit the museum, then by hearing all the other children expressing a like desire. Of course I lost no time in taking them on the trip, hoping they would find the museum interesting and provocative, but not so new as to bewilder them. Much to my delight, the children could

hardly be torn away from the place when our time was up. They were enraptured with everything they saw, from the cases of butterflies to the strange stuffed animals and various skeletons. The exhibition of eggs brought out many exclamations about the contrasting sizes—from eggs that were as small as a bean to the huge ostrich eggs—interesting to them because they had the familiar bird and hen eggs to use as a yardstick. Even my little introverts were talking volubly, asking questions, and, most encouraging of all, volunteering a few bits of information.

On our return to school, I found the children overflowing not only with enthusiasm but with constructive suggestions. They wanted to have a museum of their own, so the project started immediately. We had quite a small collection already, but now they brought in new things with a keener and more discriminating taste. We had a varied collection: Birds' eggs and nests, living crayfish and skeleton crayfishes, caterpillars, cocoons, bee hives and the fossil bee hive, an interesting collection of stones, and many other articles. Soon I found the children making simple pictures of various things they had seen in the museum, and these pictures became as much a part of our museum as the real objects.

As the need arose, the children decided to erect a building in which to house our relics. Even though crudely planned and poorly executed, it was initiated and built by the children themselves. Always before they had been relegated to the background by brighter and more aggressive children and the act of really creating gave them infinite satisfaction.

Checking up on the activity, I felt the results had been very beneficial and far reaching. In the matter of skills, the activity brought a marked improvement. Because the children had an inner desire to work, they had exerted themselves to their utmost limit. Several little artists who were naturally clever with their hands were discovered and the constructive ability of all was increased. An interest in reading developed. The usual method of teaching children to read by presenting sentences, then phrases, and then words was utterly impossible for my children. However, single words with a real meaning were presented to them by labeling the different articles as they were brought in, together with the name of the donor. Since they were vitally


OUR MUSEUM

interested, the words made a lasting impression. Later on we were able to make up very simple stories about our museum. The activity was rich in language content, since the children had something to talk about that they were interested in and could talk about.

The activity opened up a field of associative learnings for future use. Nature study and animal study were, naturally, the foremost suggestions. An interest in other localities was created by telling the children of the museums I had seen in Washington, D.C., New York, Chicago, and St. Louis. Astronomy in a very simplified form, travel, and various other fields were opened for future exploration.

The children had started with a hopeless feeling that they were incapable of doing any constructive work. While this attitude could not be changed entirely in one activity or even in one year, still the change seemed almost miraculous. As one boy said, "Yes, I'm lazy. My daddy is lazy and I'm going to grow up just like him." But under the contagion of the group spirit, how could he be anything but busily helpful? Here was something familiar enough to insure success, yet new enough to be fascinating. The cooperative spirit improved, bickering lessened, and, most important as an opening wedge, school was not a place of dread, but a place of enjoyment.

The children who had formerly been dull and apathetic, not caring to try to do anything for fear of failure, were now sitting on the edge of their chairs, eyes bright and showing real enjoyment in their work. The next problem they attacked was solved much more readily through the judgment and initiative developed in this project. While their span of interest continued extremely short and variable, tempers hot and habits bad, and a very great deal still to be accomplished, my main purpose had been achieved. *My children were now willing to try!*

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XII. A STUDY OF COTTON

By Zenobia Lyles, St. Louis, Mo.

[Note.—Informational as well as practical this study of cotton proved to be. It provided the means for both appreciation and expression. Creative activities are quite as essential for the retarded child as for the normal or gifted.]

The activity here described was carried out with a mixed group of 15 mentally retarded colored children assigned to special schools for individual instruction. The children had intelligence quotients ranging from 41 to 67 and chronological ages ranging from 9 to 15 years.

Twelve of the children in the group came from the average homes to be found in the colored districts located in the industrial centers of the city. Three children were living in homes which were undesirable places for good living conditions.

THE PREVIEW OF THE ACTIVITY

In planning this activity for the group, I had in mind two important questions:

1. What are the opportunities which it offers for individual growth in social living, health, habits of work and play, ability to use the tool subjects, ability to acquire resourcefulness, appreciation of the work of others, and efficiency in the use of leisure time?
2. What helps does my teaching environment offer?

(*a*) Public-school museum.
  (1) A complete cotton exhibit.
  (2) A film on the growing of cotton.
(*b*) Public library.
  (1) Books on cotton.
  (2) Pictures for room use.
(*c*) Art museum.
  (1) Woven textiles.
  (2) Looms.
(*d*) Dress and shirt factories, making garments on a large scale.
(*e*) Laundries, washing and ironing clothes on a large scale.
(*f*) Experiences of parents who have moved from the States where much cotton is grown.

HOW THE ACTIVITY WAS STARTED

The girls in the class wanted to make wash dresses. When two of the girls decided to make ensembles, a younger girl not knowing the meaning of the expression wanted to know what they called an "ensemble dress." The reply which was given in answering her question was not adequate, and she asked to be shown a picture of one. A real interest in the collection of a few magazines with the pictures of dresses was aroused. The girls cut out pictures of the dresses which they liked best, collected samples of wash materials, and placed them on a large table for inspection.

The actual experience of collecting samples, selecting patterns and materials, finding out the amount of cloth needed, looking for sale prices, cutting and making the dresses, called forth a real desire on the part of the girls to know more about their clothes.

When studying and judging the desirability of each girl's choice, a number of questions came up for discussion. They were listed on the board. The following questions which are stated in the exact words of a boy in the class aroused the interest of the boys as well as that of the girls:

"Why does the storekeeper down our way charge 98 cents for a cotton dress and want you to pay $9.98 for a woolen dress? Why is cotton material cheaper than woolen material?" The answering of this question was a direct lead to the study of the production of cotton from which was developed our unit of work.

THE DEVELOPMENT OF THE ACTIVITY

Two of the boys in the class had some interesting and realistic experiences in the cotton fields of their former homes in the Southern States. They were in a simple and understanding way able to give considerable information concerning the production of cotton. Many were interested in collecting pictures of cotton fields and placing them in a large record book in which all information concerning the study of cotton was kept. The best readers cut a few articles from the newspapers and magazines. The group composed a letter to a farmer in McKenzie, Tenn., and asked him to bring some cotton bolls when he made his visit to the city. The cotton

was sent by mail, and a card arrived a few days after the bolls. The children sent a simple letter of appreciation to the man. Many new words were called for before the letter met the approval of all in the class.

A sand-table representation of plantation life was carried out by the children having very low mental ages, while the older boys made a simple map study of the cotton-growing States. Drawings showing city life and plantation life were made and a short description was written under each picture.

After the cotton had been examined in the bolls, the group separated the cotton seeds from the fiber. A simple study of the cotton gin as a labor-saving device was brought in with the study of Eli Whitney's gin, invented in 1793. Two hand cards were borrowed for the carding of the cotton into "slivers."

Samples of all the available things made of cotton and its byproducts were collected. Each child with some guidance and help made a contribution to this exhibit of thread, garments, bandages, bedding, soap, and rubberized cotton fabrics. Discussing the use of each gave a chance for much free expression. Having this material on hand, the class decided to have a store. Shelves were made, prices printed, and all the materials properly labeled and arranged in the store.

After gaining an acquaintance with the source of cotton, the children wanted to know how the cotton was made into cloth. Simple hand spindles were made of rods of the size of a pencil and sharpened at both ends with a weight near the lower end. After the pupils had spun cotton threads, they became interested in pictures of old colonial spinning wheels, and made a careful inspection of one found in an old furniture dealer's store. Home weaving and factory weaving were compared in many ways. Looms of various types were made—frame looms for weaving rugs, cardboard looms for weaving hat bands and bags, and box looms for rugs and scarfs.

The children made notes on the use of cotton materials in their homes. The following "Notes on Cheesecloth" are typical:

Cheesecloth is a loosely woven cotton material. Because it was used for wrapping cheese, it received the name of cheesecloth.

Uses—We use gauze to make simple bandages.
We use cheesecloth for curtains.
We use it for pressing cloths.
We use it for dust cloths.

Similar notes were written under samples of muslin, gingham, and oilcloth.

Discussion of the parents' work in providing children with clothes led to talks on the care of clothes. The girls had actual experience in washing stockings, handkerchiefs, and towels. A few of the younger children cut out, mounted, and labeled the articles washed and the equipment used. The boys made wash benches and small ironing boards. Clothes bags were also made.

Simple textile tests were made in order that the pupils might be able to identify cotton fibers in materials. They found that cotton burns with a flash leaving no deposits, and that wool burns more slowly, forming beads at the end and giving off an odor like burning hair or feathers. These tests were made when a boy brought in an old sweater sleeve and asked if it were made of wool or cotton.

Cretonnes, chintzes, percales, and the very much in vogue printed ginghams came up for discussion when the group wanted to know if the designs were painted on the cloth. When learning about the dyeing of cloth the girls made stencils for curtains and painted oilcloth luncheon sets. The boys cut designs out of linoleum blocks and printed designs on their ties. Plain white handkerchiefs were tied and dyed.

A special study was made of Indian dyes, vegetable dyes, and commercial dyes. The dyeing experiences were organized by the children and placed on the bulletin board. A new reading vocabulary developed.

SUMMARY OF ACTIVITIES

1. Making dresses (seven girls made dresses).
2. Making cotton thread.
3. Seeding cotton.
4. Carding cotton.
5. Making a spindle.

6. Making looms.
7. Weaving rugs, bags, and bands.
8. Learning to do spool knitting.
9. Making a large cotton book.
10. Studying the designs on cotton materials.
11. Knowing cretonnes, percales, ginghams.
12. Making curtains.
13. Making charts.
14. Making tests for cotton.
15. Making dyes for cloth to be dyed.
16. Trying out vegetable and fruit dyes.
17. Making designs.
18. Studying the effect of cleaning on fabric.
19. Making stencils for scarfs.
20. Making oilcloth sets.
21. Cutting a block printer.
22. Tie-dyeing handkerchiefs.
23. Making a batik scarf.
24. Making stands and posters for the exhibit.

HOW THE ACTIVITY CLOSED

The children wanted to share their experiences with others and decided to ask their mothers to come out to see the things that were made in class. An older girl suggested that a program be given if the parents were to be invited.

It proved profitable to close the unit of work with an exhibit representing the complete unit. The children made plans for the exhibit. A program was arranged. Invitations were written and sent to the parents. When the children were arranging the different articles into groups to be placed in an assigned space or on a table, there was much evidence of worth-while living and planning together. They put up the exhibit and were able to explain it to the parents and visitors. The program included many features, such as the following:

The boys made up a drill called "Picking Cotton."

"Old Black Joe" was dramatized.

The girls exhibited the dresses which they had made.

One girl read a selection which told about the different ways to remove ink and paint stains.

Each group explained a part of the exhibit.

OUTCOMES OF THE ACTIVITY IN TERMS OF INDIVIDUAL AND GROUP GROWTH

1. *General habits and attitudes.*
   - Each child accomplished something that was considered worth while.
   - They were happy to know when they had made a worthwhile contribution, and had more confidence in their ability to carry out other activities.
   - Each child learned to share in group plans and responsibilities.
   - A desirable interest, that added to their appreciation of the work of others, was aroused.
   - The children set up standards of work.
   - Many were so busy with the carrying out of the plans that they got out of the habit of not cooperating.
2. *English.*
   - The unit of work presented many situations in which expression, oral and written, was necessary.
   - There was a very noticeable change in the ability of the group to give simple reports and information, to talk clearly and to the point, to read directions and follow directions, to read advertisements and descriptive materials.
   - The speaking vocabulary of each child was enlarged.
   - The poorer readers began to learn the meaning of symbols in concrete associations.
   - An interest in library books was developed.
   - Much of their leisure time was spent in reading.
3. *Social studies.*
   - All the children had some knowledge of the importance of the cotton industry to the comfort and well being of people.
   - They became interested in life in the South.
4. *Science.*
   - An idea of the nature of the cycle from seed to plant, of the different seasons and of the enemies of the cotton plant was gained.

5. *Arithmetic.*

The children gained some knowledge of the cost of materials.

There was much growth in the ability to work out practical problems concerning the buying, selling, and measuring of materials.

They began to read advertisements and to make a comparison of prices.

6. *Health.*

All the children became more interested in keeping their clothes clean and in wanting to be clean in the home as well as in public.

They were able to apply their knowledge of a few of the first-aid principles, and the use of cotton when necessary.

A real interest in personal appearance was evident.

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XIII. A STUDY OF TREES

By MYRTLE ARBUCKLE, *Kansas City, Mo.*

[NOTE.—Here is another visit with nature—this time limited to the specialized realm of trees. We find that the study offers abundant material for tying together all subjects of the curriculum through a common center of interest and coordinated activities.]

The community in which this activity was carried on is a home-owning district, with parents willing to cooperate with the school in the making of good citizens. It is composed of a few professional people, several merchants, and many tradespeople and laborers. The community activities center about the school and about the three neighborhood churches. There is much open space, an interest in gardening, and a pride in the appearance of homes.

The activity was carried on with an ungraded class representing fifth- and sixth-grade levels. There were 30 children in the group with IQ's ranging from 70 to 80. Their ages range from 10 to 15 years.

THE SITUATION

The project was initiated by 3 boys who brought some acorns to school. They asked the teacher if all were acorns since they were unlike in appearance and taste. The teacher had them ask other children in the room. Only 3 boys knew that they came from oak trees. The boys said they would bring some leaves from the trees to school. From the study of those leaves the tree project started.

GENERAL OBJECTIVES

1. To learn the common trees of the vicinity and gain an appreciation of their values.
2. To realize the value and necessity of conserving the national forests.
3. To give pleasure to the individual pupils.
4. To give pupils a greater interest in geography.

SPECIFIC AIMS

1. To learn how to identify trees by their leaves,[1] bark, blossoms, fruit, and shape.
2. To learn to know the parts of a tree, such as roots, trunk, branches, leaves, flowers, and fruit.
3. To learn a few of the common tree families, such as the maple, oak, rose, willow, etc.
4. To learn something about the way trees breathe in carbon dioxide and give out oxygen.
5. To learn some facts about how forests enrich and retain soil.
6. To learn some uses of trees, such as building houses, bridges, furniture, etc.
7. To learn how trees produce rosin, maple sugar, and foods of various kinds.
8. To learn how our forests are preserved for economic and aesthetic needs by forest service work and national reserves.

PROCEDURE

A. Activities Carried on

1. Leaf collections were made by the class.
2. Field trips were taken to Swope Park and woods.
3. Booklets on trees were made.
4. Magazine clippings and pictures were collected.
5. Samples of wood from lumber yards were collected.
6. Seeds and fruits were collected.
7. Original poems were written.
8. Booklets and pamphlets from lumber manufacturing companies were collected.
9. Lantern slides and motion-picture films were used (from Visual Education Department).
10. A kraft paper reel showing trees and information about them was made for the Little Theater.
11. A lumber mill and forest were designed in the sand table.

B. Methods of Work

1. Each child selected one tree seen on a field trip and drew tree and leaf.
2. Each child found material giving all the uses of trees.
3. The class located the forests in each group of States in the United States.
4. Pupils gave reports to the class on various phases of the life and use of trees.
5. Each child brought a leaf which he inked with green ink, and pressed with a blotter on drawing paper to make the outline. He then filled in the outline with a brush. These sheets made the class booklet.

[1] Identification by leaves was the easiest method and was used almost entirely.

6. Each child drew a tree for the Little Theater reel. The best were selected. Every tree in the reel was made by a different child.
7. Several children were appointed to give special attention to printing on the reel.
8. The pupils who were not so skillful in drawing produced a lumber scene in the sand table.
9. Pupils gave reports to the class relative to marks of similarity of trees in the same family; compared early waste of trees with the practice of conservation.
10. The tree study was correlated with reading, geography, arithmetic, English, and art.
11. Drills and checks were used when needed.

CORRELATED SUBJECT MATTER

1. Geography:
   - (*a*) Each group of States in the United States was studied to find what trees grow there and why.
   - (*b*) National-forest reservations were located.
   - (*c*) It was determined what group of States produce lumber, naval stores, maple sugar, etc.
   - (*d*) The countries producing rubber and dyes were located.
2. Reading:
   - (*a*) Extensive reading for facts and general information about trees.
   - (*b*) Intensive reading to secure facts for oral reports.
3. Arithmetic (original problems were made about the following subjects):
   - (*a*) Number of men employed in lumbering and in the manufacturing of products from trees.
   - (*b*) Comparison of areas now covered with forests with those of former days.
   - (*c*) Values of lumbering industries.
4. English:
   - (*a*) Oral and written reports on trees were given.
   - (*b*) Original poems were written.
5. Spelling: Meaning and spelling of new words in the tree vocabulary were learned.
6. Art:
   - (*a*) Posters were drawn.
   - (*b*) Leaf books showing types of trees were made.
   - (*c*) Reel for Little Theater was made.
   - (*d*) Leaf for each tree seen on field trip was mounted.
7. Nature study:
   - (*a*) Names of common trees and tree families were learned.
   - (*b*) Parts of tree were learned.
   - (*c*) Uses of trees were studied.
   - (*d*) Means of nourishment and life for trees were studied.

8. Citizenship:
   (*a*) Spirit of cooperation was increased.
   (*b*) Satisfaction and pleasure in pleasant talk about trees were developed.
   (*c*) An appreciation, a knowledge, and a love of trees were developed.

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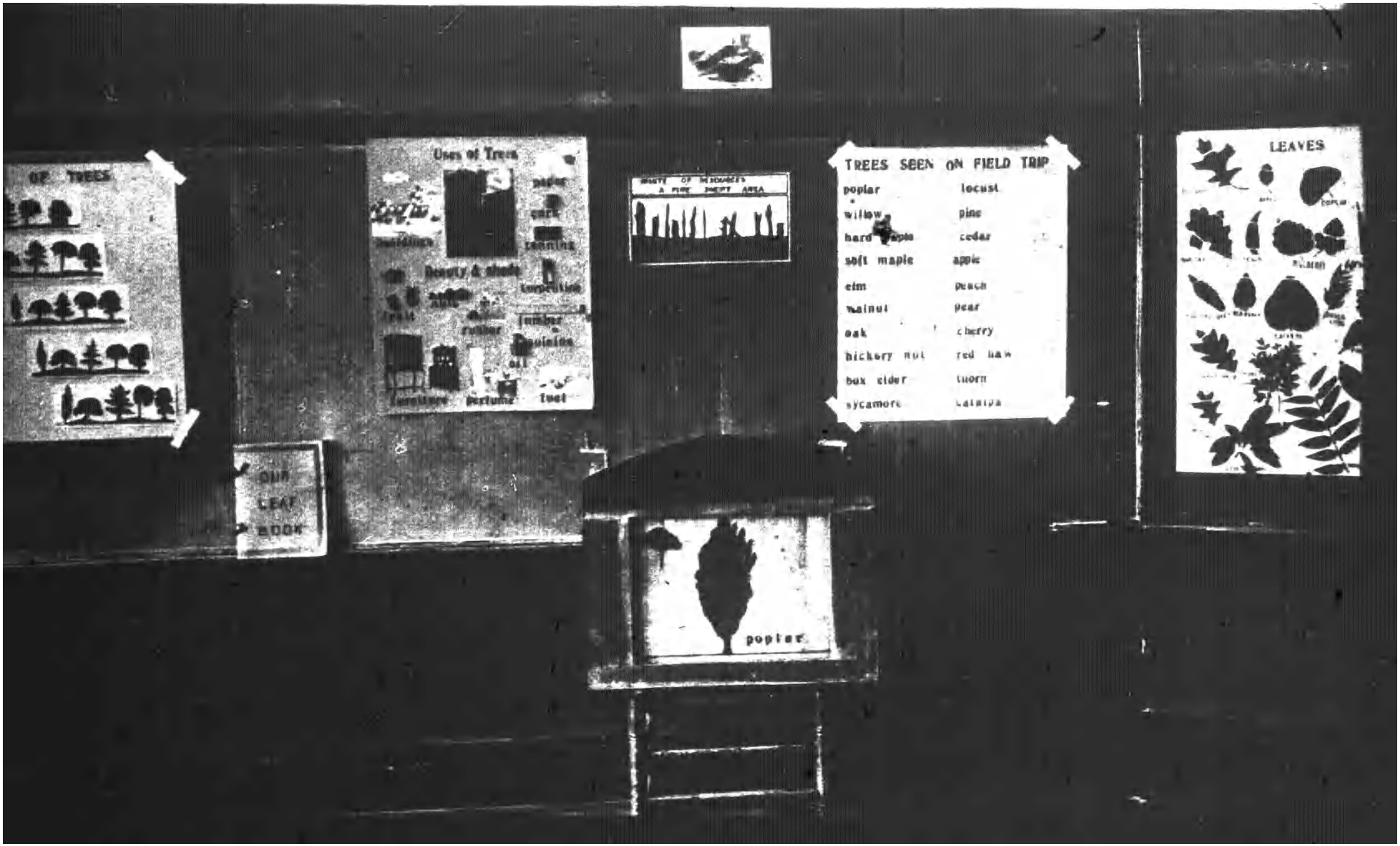

OF TREES
Uses of Trees
paper
cork
tanning
Beauty & shade
turpentine
lumber
rubber
Quinine
oil
furniture
perfume
fuel
WASTE OF RESOURCES
A FIRE INEPT AREA
TREES SEEN ON FIELD TRIP
poplar
locust
willow
pine
hard maple
cedar
soft maple
apple
elm
peach
walnut
pear
oak
cherry
hickory nut
red haw
box elder
thorn
sycamore
catalpa
LEAVES
OUR
LEAF
BOOK
poplar

XIV. THE TOY ORCHESTRA

By GEORGIA F. ISAAC, *Los Angeles, Calif.*

[NOTE.—There is no field that gives greater opportunity for creative activity than music. This account shows how the pupils in one special class were led to an appreciation and expression of musical interests that brought delight not only to themselves but to others who listened to their performance.]

The activities included in this account are merely suggestive. No teacher will wish to follow them exactly. Since any one who is interested can find a wealth of material on toy orchestras from books suggested in the bibliography, I have omitted numerous details. For many helpful suggestions concerning the activity, grateful acknowledgment is due to Mrs. Nelle C. Taylor, principal of Echandia Street School.

THE SCHOOL

Echandia Street School is a development center, the enrollment consisting of 150 subnormal children divided into groups according to their chronological ages and ability to adjust socially. The school is located in a neighborhood that consists largely of Italians, Russians, and Mexicans. Nearly all of the pupils come from very poor Mexican homes where the parents cannot speak English. Besides the Mexican children there are several Russian, Armenian, and Jewish children in the school.

The chronological ages of the boys who took part in the activity ranged from 9 years 10 months to 11 years 5 months. Their I.Q.'s ranged from 44 to 78. The entire group of 28 intermediate boys took some part in the activity, although all of them did not have a permanent place in the orchestra.

OBJECTIVES

1. To endeavor, through actual happy experience, to bring the children to a better understanding of rhythm and melody.

2. To help to make the children better American citizens by giving them practice in cooperative teamwork and by

trying to develop within them the qualities of courtesy and helpfulness to one's fellow-workers in everyday living; to help the boys to adjust socially.

3. To endeavor to instill within them a permanent interest in and love for music.

ACTIVITIES

A. Making Toy Instruments:

I. Bass drum:

1. Materials used:

(a) Nail keg.
(b) End of wooden orange crate (for stand).
(c) Old leather pillow top.
(d) One half pint red paint.
(e) Sandpaper.
(f) Thumb tacks.
(g) Small amount of green, blue, and yellow calcimine.
(h) Paint brush.
(i) Hammer, saw, scissors, pencil, wrapping paper, chalk.
(j) Piece of doweling and spool for drumstick.

2. Procedure:

(a) Make stand for drum to rest on out of two pieces of one-half inch wood.
(b) Nail keg to stand.
(c) Sandpaper keg.
(d) Paint keg and stand; allow to dry.
(e) Plan design for drum on wrapping paper.
(f) Draw design on drum with chalk. (Chalk marks are erased easily if mistakes are made.)
(g) Color design with calcimine, allow to dry and shellac.
(h) Put a keg on end over a piece of wrapping paper and trace around it. Cut two inches on the outside of the line to make pattern for the drumhead. Fit the pattern over the keg ends to make sure it is the right size.
(i) Cut two leather drumheads the size of the pattern.
(j) Soak the drumheads in water.
(k) Squeeze as dry as possible by hand.

A. Making Toy Instruments—Continued.

I. Bass drum—Continued.

2. Procedure—Continued.

(l) Stretch firmly over the keg ends and tack in place. (Our boys turned in the edges of the leather to make a stronger finish.) As the leather dries it shrinks and gets tighter. It should be watched so that the tacks may be removed if the leather begins to tear.

(m) Smooth a whittled stick or piece of half inch doweling and fasten a spool to the end of it for a drumstick. Pad the spool with cloth or leather so that your drum will have a softer sound.

II. Horn:

1. Materials used:

(a) Kazoo.
(b) Funnel.
(c) Cardboard spool such as those on which string or jute is wound.
(d) Glue.
(e) Paint and paint brush.
(f) Gummed tape.
(g) Colored string, scissors.

2. Procedure:

(a) Wrap end of funnel with narrow strip of gummed tape.
(b) Glue funnel into one end of cardboard spool.
(c) Glue kazoo into other end of cardboard spool.
(d) Allow glue to dry thoroughly.
(e) Paint horn any color.
(f) Make a tassel of string to decorate it, if desired.

III. Clapper:

1. Materials used:

(a) Two tin bottle tops.
(b) Thin piece of wood.
(c) Sandpaper.
(d) Paint and paint brush.
(e) Saw, hammer, nails.
(f) Pencil, paper, scissors.
(g) A few small pebbles.

A. Making Toy Instruments—Continued.

III. Clapper—Continued.

2. Procedure:

(a) Fold paper and cut pattern for clapper.
(b) Trace pattern to wood.
(c) Saw out clapper.
(d) Sandpaper smooth.
(e) Put pebbles into bottle tops, fitting the insides of the tops carefully together.
(f) Nail securely to round part of wood.
(g) Paint any color.

IV. Lute:

1. Materials used:

(a) Cigar box.
(b) Long piece of wood for neck.
(c) Strings from guitar.
(d) Strip of wood for keys.
(e) Tools: Hammer, saw, auger, paint brush, knife.
(f) Paint.
(g) Glue.
(h) Sandpaper, nails.

2. Procedure:

(a) Saw triangular hole in top of box.
(b) Shape neck of lute and bore holes for tuning keys.
(c) Cut out tuning keys, sandpaper them and fit them into holes.
(d) Nail box shut.
(e) Slit small piece of wood to hold strings and nail it over end of box.
(f) Attach strings to lute.
(g) Tune to piano.

V. Tambourine:

1. Materials used:

(a) Two heavy paper plates.
(b) Red paint and paint brush.
(c) Pencil, ruler, and paper punch.
(d) Heavy red string.
(e) Small brass bells.

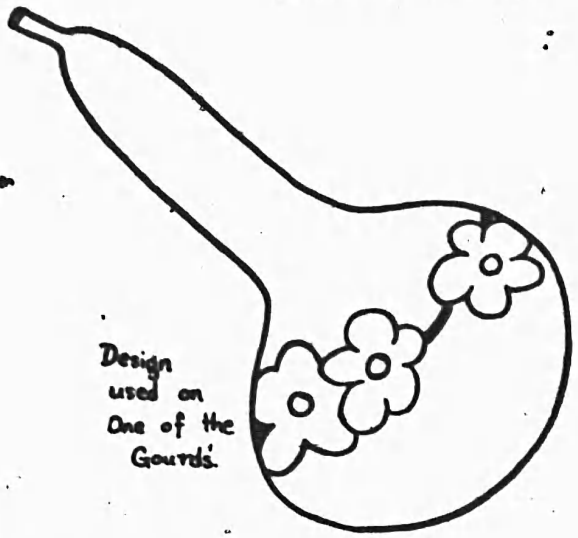
2. Procedure:

(a) Put pencil dots two inches apart and one-half inch from edge all around each plate.
(b) Punch holes on pencil marks.
(c) Paint border to represent rim of tambourine.
(d) Lace plates together, putting a bell at each hole.

A. Making Toy Instruments—Continued.

VI. Gourd:

1. Materials used:
   - (a) Gourd.
   - (b) Sandpaper.
   - (c) Chalk.
   - (d) Calcimine.
   - (e) Paint brush.
   - (f) Shellac.
2. Procedure:
   - (a) Clean gourd thoroughly with sandpaper.
   - (b) Draw design on gourd with chalk. If the first attempt is not successful, it may be erased with a damp cloth.
   - (c) Paint design with calcimine.
   - (d) Give the gourd a thin coat of shellac to protect the design.



VII. Pipes of Pan:

1. Materials used:
   - (a) Hollow reeds or small tubes.
   - (b) Stout string, thumb tacks, and strip of wood.
   - (c) Sand
2. Hints on making:
   - (a) Placing sand in the reed raises its tone.
   - (b) When shortening reed to raise the tone it is better to use sandpaper than a knife because less can be removed with sandpaper.
   - (c) Reeds may be fastened together with cord, wood, and thumb tacks.

A. MAKING TOY INSTRUMENTS—Continued.

VIII. Can of shelled pop corn (decorated with paint). (This makes a rather pleasant sound with which to bring in effects of rhythm.)

IX. Castanets:

1. Materials used:
   (a) Tin lids from jars.
   (b) Strip of wood.
   (c) Tools (same as those used in making clapper).
2. Hints on making:
   The castanet is made in the same way as the clapper with the exception that the bottle lids are attached loosely so that they will clap together when played. The pebbles are omitted.

X. Painted small tin kettle lids for cymbals.

XI. Baton (made of dowel painted black).

XII. Rattler (made of oatmeal box with chips of wood inside).

XIII. Triangle (made of metal rod).

XIV. Snare drum (made of old drum frame covered with heavy cloth to which a coat of shellac was applied).

B. MAKING OTHER EQUIPMENT:

I. Instrument rack.

II. Serapes for uniforms.

III. Spanish shawls for decorating piano and walls:

1. Hemmed square of unbleached muslin.
2. Large square of paper—to plan design.
3. Pencil, carbon paper, pins.
4. Crayolas.
5. Hot iron to set colors.
6. Colored string for fringe.

IV. Slides of activity:

1. Writing brief stories for slides.
2. Making pictures on glass slides with small pen and India ink.

(The stories may be typed on small sheets of transparent cellophane by putting a piece of carbon paper over the cellophane and releasing the typewriter ribbon before typing. These sheets may be placed between glass slides for showing.)

V. Invitations written for "picture show."

C. OTHER CLASSROOM ACTIVITIES:

I. Making booklets for records:

1. Writing stories of work done.
   (This was a class activity.)
2. Copying the stories into the booklets.
3. Drawing pictures of instruments.

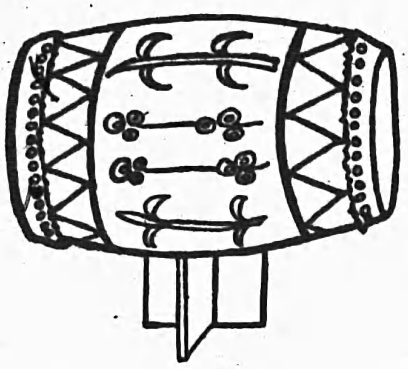
C. Other Classroom Activities—Continued.

II. Writing letters to music companies for literature on musical instruments.
III. Playing games with flash cards of new words learned.
IV. Making holders from cheese boxes for word cards to be filed alphabetically.
V. Computing costs of materials used in activity.
VI. Reading from the music appreciation reader, Storyland, by Hazel Kinscella. This book was obtained in sets from the Los Angeles City School Library.
VII. Listening to phonograph records and instrumental music suggested by the lessons in Storyland.
VIII. Listening to musical poems.
IX. Listening to musicians at Spanish Club.
X. Looking at pictures representing the love for music:
1. Song of the Lark.
2. Pipes of Pan.
XI. Operating slide machine and entertaining at "picture show".
XII. Playing instruments for girls to dance.
XIII. Playing at the annual fiesta of the school.
XIV. Playing at the benefit entertainment of the Spanish Club.
XV. Playing at carnival of Wilshire Crest School.

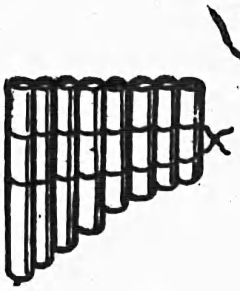
BRIEF ACCOUNT OF THE ACTIVITY

The activity at Echandia Street School was pupil-motivated. Just before Halloween, Raoul, one of the boys of the class, brought a kazoo to which he had fastened a wooden spring to represent a slide trombone. It was a very amusing affair and he wanted to play it at the Halloween party that the children were having that afternoon. We had 2 boys in the room who could play harmonicas, and they asked to play with him. The 2 harmonicas, the piano, and the ridiculous slide trombone produced a couple of numbers at the Halloween party that were highly entertaining to the children of the whole group. The boys were so enthusiastic over the music that they wanted to hear it over and over again.

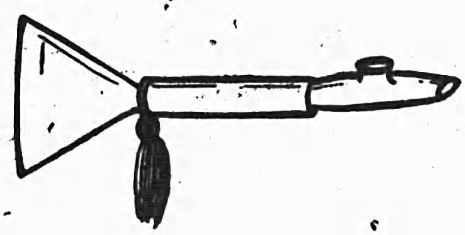
The following week the boys began to bring to school all sorts of things that made noise. Whistles, tin drums, tin horns, Halloween click-clacks, and kazoos were brought in. They all wanted to try to play. "Let's have a band and all play together", suggested one of the boys. "If I bring something, may I play, too?"



Drum

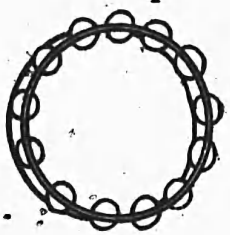


Pipes of Pan

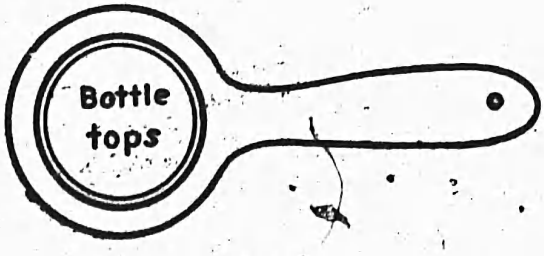


Horn

Lute



Tambourine



Clapper

Many things were brought in that could not be used. Halloween tin tambourines, automobile horns, an old phonograph horn, and all kinds of old sheet music. The children had the opportunity of trying their new finds and then of deciding in the case of each one whether it would improve the music of the original trio. In almost every case the group decided that something better was needed. The horns and whistles could not be used because they each had but one tone. The tin drums and tin tambourines had loud harsh tones when played. Then came the question, "What are real drums and tambourines made of? They don't sound like these." One of the boys said that real drums had leather stretched over them. He believed that the class could make one if they had some leather.

On the following Monday we secured two books containing pictures of home-made instruments, *Creative Music for Children*, and *The Drum Book*, by Satis N. Coleman. The Drum Book gives suggestions for making drums of all descriptions. The boys looked at the pictures and listened to passages read from the books. They finally decided that they would like to make a large drum out of a pickle or nail keg.

Then began the search for a keg. The boys looked for more than a week before one of them was able to acquire a nail keg from a carpenter. Someone gave Robert an old leather pillow top to use for a drum head.

Two boys began work on the bass drum. First they made a stand out of some rather heavy box lumber. They nailed this securely to the side of the keg and sandpapered the entire exterior. Then they painted the drum and stand red and set it away to dry.

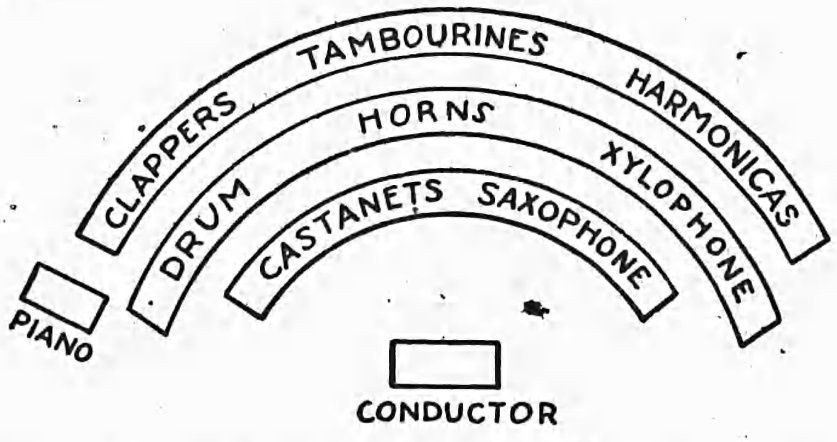
Several other boys tried to draw designs to put on the drum. They worked on wrapping paper of the width of the drum and made a border to allow for the fastening of the leather drum head. After they had made a design that they liked, they copied it on the drum with white chalk. The design was then painted with calcimine, allowed to dry, and shellacked.

In the meantime we borrowed books containing pictures and stories of real instruments, and some of the other children became interested in making small drums, horns, and clappers. Scarcely a morning passed without contributions of old fun-

nels for horns, cigar boxes for guitars, or pieces of broken discarded instruments that the children had found; and it was not long before nearly every child in the class was making something for the orchestra.

As soon as several of the instruments were finished we began to practice playing them together. Because our harmonicas were in the key of C, we chose simple familiar songs written in this key. It was necessary to stress rhythm at the beginning, so that every child would feel the importance of keeping time; and we began to feel the need of a good child leader.

Alfonso made a baton of wood and painted it black. Each took turns at directing while the rest of the boys tried to follow. It was very difficult for the leader to get them all to begin at once and all to stop at the same time. In order to make it easier for the director, we decided to group the children who played the same instruments and to put the boys who played the drum, clappers, and tambourines, closer to the piano where they could get the time from the bass of the piano accompaniment. We finally worked out a seating plan like this:



As soon as the band began to keep better time we added more instruments to carry the melody, namely, some new harmonicas, a toy xylophone, a toy saxophone, and some horns made of kazoos and funnels.

The boys who played the xylophone learned the tunes at first by following the names of the notes. The notes on the xylophone were lettered and they felt that they were accomplishing a difficult feat when they followed this "score" of "Cielito Lindo": g c c a b g c c a b g c c a b g f d b b b a g f e d e f g g g b d e c.

Since we had but one small instrument of this type, the youngsters considered it a privilege to be able to play it, and they came in before school in the morning and at recesses to practice their songs.

The children learned to play the other "toys" by ear, however; and since we tried to choose those that did not offend too much if a mistake was made, the children were well pleased with results.

In order to facilitate order in getting ready to play and in putting the instruments away after use, the children thought that they needed a place to keep the things and a manager to see that the chairs and instruments were in their places. The boys chose a manager and monitors for chairs and harmonicas. Three of the pupils made a rack on which to hang the instruments when they were not in use.

It was suggested to the children that they might write stories of their band. They readily accepted the suggestion and made some booklets with cardboard covers for their records. In these they wrote short simple records of their activity.

From the library books that were used, the children learned that nearly all bands have uniforms of some kind. The boys thought it would be nice to have some serapes to wear when they played. After looking at pictures of serapes and a real serape that came from Mexico, the boys drew designs on unbleached muslin and colored them with crayolas to represent serapes. They put a fringe of red cotton string on each end. The principal allowed money from the school fund to purchase white trousers for the group. With shirts and sombreros that the school already owned, the boys were quite presentable in their uniforms. They were especially proud of their white trousers.

The culmination of the activity came when the school had its annual "El Mercado de Los Niñas" or Little Market of the Children. The market was open 4 days and the band had a part in the program.

PRACTICE

The boys began their practice with a selection with which they were already familiar. They had tried to sing "La Paloma" during their music period, and they were familiar

with the melody of this Mexican song, so we decided to learn to play it.

After the chairs were arranged, the instruments were distributed and the boys were in their places. The children listened to the first part of the song while it was played on the piano. Then the group with kazoos played the first 10 measures with the piano. Some of the children had to be shown again the best way to play the kazoos. The drum player, the groups with the clappers, tambourines, and harmonicas each had a turn at playing part of the selection before they tried playing together.

When they were questioned, the boys said it would sound better to have the piano, the drum, and the tambourines play the first four measures of the selection, and have the harmonicas and kazoos begin on the fifth measure. We tried practicing the first part according to this suggestion and found that the variety of effect was more pleasing.

It was necessary to stop at different intervals to give special help to an individual player or group of players who did not play in time or in tune. The boys were insistent upon having the members who were off tune practice with only the piano until they improved.

Our practice periods lasted from 30 to 45 minutes about twice a week. By having a rather short time for practice the children did not tire of it and were always anxious to "play."

As soon as the boys had learned to handle their instruments properly and had acquired the habits of listening more attentively and responding more quickly to the leader, they began to learn new selections.

With the exception of the xylophone player, all of the children tried to play by ear. We used the following method:

1. The children listened to the composition to get the rhythm and melody.
2. The children listened while it was played a second time, to decide where the different instruments should be played.
3. Members made suggestions and showed how they would bring in their particular instruments.
4. Class decided what ideas were best for that selection.
5. Groups practiced parts separately.

6. Entire selection was tried, the groups coming in at different parts of the song.

Only very simple "orchestrations" and short compositions were selected for this work. We also tried to choose music with marked rhythm and lively tempo since those qualities appealed to this group of boys.

There were several monotones in the class and these children had never been interested in singing. After the orchestra had been organized and could play a few selections fairly well, there came a suggestion that the boys sing certain parts of the songs they played. Many of the popular orchestras heard over the radio and on our phonograph records interpolated their playing with singing. The children had heard these orchestras and were anxious to try singing parts of some of the songs. I believe that this practice did more for the children than did our former singing lessons, since they had learned to listen more attentively and since they were vitally interested in the work of "their orchestra."

Some of the boys in the orchestra and the girls in another group learned a few of the Mexican folk dances and practiced dancing to the music of the toys.

CONTROL

The one problem of control in this activity involved the playing of instruments before the leader gave orders. The boys were impatient to begin playing, and their natural impulse was to toot their horns the minute they came into possession of them. To overcome this confusion we discussed the ways that a real band or orchestra takes its place—how the members are quiet with the exception of those who must tune their instruments. Our instruments needed no tuning, so any sound from them before the leader gave the signal was unnecessary noise. After the discussion we tried playing a selection without having any needless commotion. The boys, of course, were favorably impressed with the difference. They decided they would have no more confusion in their band. Occasionally after that a member would obey the impulse to blow his horn out of turn. When this happened the rest of the boys were disgusted.

"Let's put him out, Miss", they would suggest.

"He'll spoil the band."

None of the children wished to be ostracized, so we had very little trouble.

OUTCOMES

Specific outcomes of the activity in terms of:

A. Knowledge:
   1. Recognition of differences between marches, waltzes, and jarabes (Mexican folk dances).
      (a) Accent sensed.
      (b) Basis for time recognition acquired.
   2. Names of various instruments.
      (a) Tambourine.
      (b) Castanet.
      (c) Guitar, etc.
   3. How instruments are made.
   4. How to plan work before the material is altered.
      (a) Drawing of drum to be made.
      (b) Design of decoration for drum drawn on paper.
      (c) Pattern for drum heads, etc.
   5. How a booklet is made.
   6. How a simple record is written.
      (a) Margins.
      (b) Capital letters.
      (c) Punctuation marks.
   7. Method of applying crayons to cloth in making Spanish shawls and serapes for decoration.
      (a) Applying crayola firmly and evenly to cloth.
      (b) Pressing with hot iron under damp cloth to set colors.
   8. Method of putting fringe on serapes.
   9. Ways of directing an orchestra or band and meanings of different signals.
   10. Ways of making slides and operating slide machine.
   11. Improvement in technique of reading, writing, and arithmetic as applied to the activity.

B. Habits. Children improved in habits of:
   1. Courtesy.
   2. Promptness.
   3. Attention.
   4. Order.
   5. Responsibility.
      (The boys were especially careful of their instruments and uniforms.)
   6. Concentration.
   7. Worthy use of leisure time.

C. Attitudes:
   1. Interest in and appreciation of music.
   2. Spirit of whole-hearted cooperation.
   3. Pride in work and in school.

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A simple little book of music stories and poems with notes suggesting selections for music appreciation suitable for each lesson. An excellent reader to use in connection with this activity.

[1] Some of these books are too difficult for the children to read, but they enjoy the illustrations.

XV. BOOKS AND BOOKMAKING

By MARTHA MACDONALD, *Pittsburgh, Pa.*[1]

[NOTE.—To bring into the children's experiences a feeling of close comradeship with books and with some of the simpler gems of literature is one of the major objectives of this activity. It shows how actual construction work and the development of reading ability can proceed hand in hand as component parts of the same project.]

The activity suggested by the caption above was carried on with a group of 16 children, ranging in chronological age from 10 to 15 years, and in mental age from 6 to 12 years. The project seemed to be worth while for the following reasons:

1. Every child loves an attractive book. To handle it and to look into its pages affords pleasure, whether the child can read or not. In this the special-class child is not unlike other children.

2. The access to many books in the schoolroom has stimulated interest and extended the child's horizon to include many fields of information.

3. The frequent use of moving pictures and the reading of current topics in the Weekly Reader have brought the child in touch with "world interests."

4. The making of booklets simple in construction has furnished a pleasurable activity, developed skills, and helped in forming desirable habits.

5. The opportunity seemed at hand whereby the child's knowledge, interests, and skills could be organized into a unit of work which would add to his knowledge, multiply his interests, develop new skills, and prepare for a more intelligent appreciation and a wider use of books.

I. OBJECTIVES

A. To increase the child's knowledge through an awakened interest in books.
B. To help the child to make a wider use of books.
C. To train the child in the care of books.
D. To teach the rudiments of a phase of industrial life: Bookbinding.

[1] We are indebted to Miss MacDonald for the silhouettes appearing in this activity and on the cover of this bulletin. They represent actual children in her classroom.

II. Procedure

A. Sense games and stories, pictures, and specimens were used to direct the child's attention toward the field of information touching his life close at hand, about which he should know and about which he can learn much through a quickened functioning of his bodily senses.

B. Also by the means used under "A" above, fields of information, expanding and remote, were brought to the child's attention.

C. By the use of stories illustrated with posters it was shown that remote fields of information have become tangible through observation and the use of the various means by which one may travel over the earth and sea and through the air.

D. Also by means used under "C" above, the child's attention was centered on the multiplicity of aids developed and developing to bring the world's information to all our children.

E. A book is the best-known device from which to obtain and in which to store information, and the evolution of the book made an interesting story and study.

F. A book was explored as to construction, covering materials, tools, and steps in the making; this was a class lesson and was followed by a dramatization.

G. A book, through use or misuse, may be in need of repair, and the class repairs it.

H. An honor chart or graph may be used to stimulate interest and to reward for effort the children who have done independent work in the reading of stories or books.

III. Activities

A. Seat work:
   1. Simple booklets for use under points 2 and 3 following.
   2. Cutting, pasting, folding, coloring.
   3. Scrapbook work.

B. Class work:
   1. Reading:
      (*a*) Oral:
         1 Books based on the activity.
         2. Stories about books, found in standard readers.
         3 My Weekly Reader, edition no. 1.
      (*b*) Audience (reading by teacher):
         1. Supplementary books and stories related to the subject.
         2. Book of knowledge, vol. 3, pp. 887–898.
      (*c*) Work type:
         1. True and false tests.
         2. Multiple choice tests.
         3. Completion tests.
   2. Spelling: Words based on the activity.

3. Language:
   (a) Oral:
      1. Dramatization.
      2. Brief poems found in library books and readers emphasizing aims in the activity.
   (b) Written:
      1. Stories on unit of work.
      2. Stories about authors:
         (a) Longfellow.
         (b) Stevenson.
      3. Book maxims.
4. Numbers: Problems based on the activity.
5. Art:
   (a) Book covers.
   (b) Book cover designs.
   (c) Book markers.
   (d) Book posters.
   (e) Book plates.
   (f) Printing and lettering.
6. Excursions:
   (a) To local branch of Carnegie Library.
   (b) To Carnegie Central Library and room in Carnegie Museum containing "old and rare books."
   (c) To the bindery at Carnegie Central Library Building.
   (d) To a printing establishment and bindery in our own school district where books are printed and bound.
7. Construction:
   (a) A "library corner" in our classroom.
   (b) Book shelves in classroom.
   (c) Book ends.
   (d) A class book—being a composite of the childreh's work.

EXPLANATORY NOTE

The pages which follow have reference to a series of reading lessons worked out during the activity. First is given the "teacher's page", containing the aim and a possible procedure for each lesson development. Then comes the "pupil's page." This is to be "dittoed" and given to the children as the time for it arrives. Each of these pupils' pages contains a lesson "to read" and a task "to do." These pages, together with blank ones called "work pages" needed in the working out of the task assignments, will make up the pupil's book entitled "Read and Do."

182058°—33——9

Poster work is introduced with lesson no. 11. There are 14 posters in the series, uniform in size. Pictures will be required from time to time for the posters and for the children's books, Read and Do. The teacher should begin to gather magazines, papers, and catalogs from which appropriate pictures can be cut by the teacher or by the children when required. Appropriate and inexpensive pictures can also be obtained from several commercial houses and their catalogs should be kept for easy reference at all times. The teacher should send for the same now.[3]

For the entire book a suitable cover is made and decorated and some method devised and followed for fastening in the pages.

[3] See page 166 under "Selected References and Materials."

(TEACHER)

The teacher will help the child to make the cover for his book. This should be simple in construction and for temporary use. To the cover should be added the title—

READ AND DO

in bold, large, cut-out or printed letters.

Later on, when the construction lessons in bookbinding have been developed under the unit of work, a permanent cover may be made.

The child receives the first page for his book, reads it, writes his name in the proper place, and fastens it into the cover.

LESSON 1

Aim of this lesson

To give to all the children an opportunity for free and informal expression.

To engage the children in conversation about the activities and experiences of the vacation season.

The opening day of school marks the end of the summer vacation and the beginning of schoolroom routine.

It seems to be an opportune time to let the children engage in a free and informal conversation about the activities and experiences of vacation. Develop the word "vacation."

"What we DID in vacation."
"What we SAW in vacation."
"Where we WENT in vacation."

The above captions could be used for oral or written English, word building, and illustrative work involving the child's interest and the child's ability.

Give the children a page with the poem "September" written on it.

(First Page for the Pupil's Book)

READ AND DO

Today you begin to make a book.
It will be Your Book.
In your book you will find lessons to Read.
In your book you will have things to Do.
Write your name in your book:
Name _____

Lesson 1

READ

1. Vacation is ended.
2. School has begun.
3. Vacation days are happy days.
4. July and August are vacation months.
5. We played in vacation.
6. We worked in vacation.
7. Some boys and girls went away.
8. Miss MacDonald went away to summer school.
9. Mr. Fruit lived on his farm in the country.
10. Today is Tuesday, September 1, 1931.

DO

Make a picture and Paste it here:

_____

Vacation days are happy days.

READ

SEPTEMBER

The hills are gold, the nights are cool,
The apple wears a rosy hook;
And now 'tis time to go to school
And learn how pleasant is a book!

We've played beside the buttercup
And rested near the friendly fern;
But now we take our pencils up
For there are happy things to learn.

And soon the birds will leave the wood
And ice will still the singing brook,
Then we shall find it very good
To stay indoors and read a book.
—*Vivian Yeiser Laramore.*

DO

Place this page in your book.

(TEACHER)

LESSON 2.

Aim of this lesson

To utilize the child's interest in the varied activities attendant upon the opening day of school and particularly the enrollment of the little children just beginning their school careers.

Discuss the activities of the opening day of school, the need of enrolling early, and the age of children just entering. Talk of ways in which special class children can help the school, the home, and the beginners just entering school.

Special attention may be directed toward the beginner—how his environment has changed, what it includes, and how differently different children react to the new and strange environment.

The children then read the story of the little boy who refused to participate in anything on the first day of school, but repeated efforts to solve the difficulty finally ended when the teacher took the child unawares with a gentle love pat and said, "You'll do this for me, won't you?" to which the child replied, "Yes, but I won't read for you."

After the child has read the story, it should be placed in his book and fastened into it. Help him to understand clearly the work he is to do, so that independent work can be done on the succeeding lessons.

[NOTE.—A work page is given with this lesson.]

(PUPIL'S PAGE)

LESSON 2

READ

Billy Goes to School

It was the first day of school at the Luckey School. A boy brought his little brother Billy to school.

Things looked very strange to Billy and he was frightened.

He sat still. He would not talk. He would not do anything.

At last the teacher found out what was the trouble with Billy.

He had heard that boys and girls had to read at school. He could not read. He was frightened. He did not know that he had to LEARN to read.

Children learn many things before they learn to read.

DO

1. On the work page draw a schoolhouse.
2. Find the picture of a little child who has just started to school. PASTE the picture near the school. Give the child a name and write the name below the picture.

[NOTE.—A work page follows this.]

(TEACHER)

LESSON 3

Aim of this lesson

To acquaint the child with some school facts which he should know.

Refer to the story of Billy and his great fear that he would have to read upon going to school. One child may tell the story and one may reread it.

Emphasize the fact that Billy had much to learn before he would learn to read. Let the children tell of the things he will be learning.

The children then read lesson 3, containing some school facts which are of special interest to them.

(PUPIL'S PAGE)

LESSON 3

READ

Things We Have Learned and Can Read

1. We are in school today.
2. Today is ———, September ———, 1931.

3. Our school is the Luckey School.
4. Our school is on Wabash Avenue, West End, Pittsburgh, Pa.
5. There are ——— girls and ——— boys in our school.
6. I am in the special class.
7. Miss MacDonald is my teacher.
8. Mr. Fruit is my principal.
9. ——— little children started to our school this week.
10. These little children can not read.

DO

Color the words below:

CHILDREN LEARN TO READ AT SCHOOL.

(TEACHER)

LESSON 4

Aim of this lesson

To familiarize the child with other facts which he should know.

Help the child to fill in the blanks in his lesson page correctly. Let each child read aloud his own lesson.

The facts in this lesson need further emphasis, so refer to this lesson as often as is needful.

(Pupil's Page)

Lesson 4

READ

1. My name is _____
2. My address is _____ Street.

   _____ P.O.

   _____, _____
3. I was born _____ _____ _____.
   month day year
4. I am _____ and _____ tall.
   feet inche
5. I weigh _____and _____.
   pounds ounces
6. I have _____ hair.
   color
7. I have _____ eyes.
   color
8. My favorite game is _____
9. My best friend is _____
10. I would like to be, when I grow up, a _____

DO

Address this envelope to yourself:

_____

_____ Street.

_____ P.O.

_____, _____

(Teacher)

Lesson 5

Aim of this lesson

To familiarize the child with other facts which relate directly to his school life, and about which he should know.

In our school the name of the teacher and the number of her grade appear on the outside of her schoolroom door; on the office door is the name of the principal and his official title.

The children, even when they know the office and the rooms by location only, stop and seem to enjoy reading the names on the doors.

The words on the work page are to be cut up by the children and pasted where they belong on the lesson page.

[Note.—A work page is given with this lesson.]

(Pupil's Page)

Lesson 5

READ

Read these names:

1. Mr. Fruit. _____
2. Mrs. Ringle. _____
3. Miss Egbert. _____
4. Miss Brady _____
5. Miss Will. _____
6. Miss Curran. _____
7. Miss MacDonald. _____
8. Mr. Stein. _____

DO

On the work page you will see:

1B–1A	5B–5A–6B
2B–2A	Office of principal
3B–3A	Special class and head teacher
4B–4A	Custodian

Cut on the lines from the work page and then paste the words in the right places on this page.

[NOTE.—Work page follows this.]

(TEACHER)

LESSON 6

Aim of this lesson

To familiarize the child with other facts which relate directly to his school life and about which he should know.

The children should be able to recognize the printed or written names of their classmates.

Children find it a happy experience to distribute papers to their owners, and this lesson should help them to learn to do this service and experience this happiness.

Have the names of all classmates printed on a separate paper. Let the children talk about these, and then have them cut the names apart and place the same in the positions the children occupy in the room.

[NOTE.—A work page is given with this lesson.]

(PUPIL'S PAGE)

LESSON 6

READ

Read the names of the boys and girls in the special class:

Philip Pass	Ruth Smoot
Henry Sawyer	James Moyer
Marie Hinston	Raymond Frey
Claude Fish	William Nels
Frank Fordson	Sylvester McGowan
John Binney	Thomas Brown
James Doll	Robert Allenson
Jane Passaro	Dominic Martino

DO

1. Here is a PLAN of the special classroom. See if you can tell where the boys and girls sit.
2. Cut the names from the work page and place them where they should go on this plan.

(*Plan of the classroom is blocked out in this space.*)

[NOTE.—Work page follows, with names of children blocked for cutting.]

(TEACHER)

LESSON 7

Aim of this lesson

To direct the child's attention toward the field of information close at hand and about which he can learn much through the sense of sight.

1. Eyes: Number, color, use, care of; precautions at play.
2. Keen eyes, defective eyes, sightless eyes.
3. Blind children, blind school, Braille system.
4. Sentences blind children will not read:

"I see you, Mother. I see you, Father."

5. Things blind children cannot comprehend: The landscapes and the skies.

6. Things we can see and know about with our eyes.

7. Sense games, involving sight.

8. How blind people find their way: Stick, friend, kindly stranger, dog.

9. How we may help the blind.

Pictures or plates of BRAILLE READER would add interest to this lesson.

(PUPIL'S PAGE)

LESSON 7

READ

1. The sky is blue today. (Yes—No.)
2. The sun is shining. (Yes—No.)
3. The lights are lit in our room. (Yes—No.)
4. Philip is in school today. (Yes—No.)
5. Jane is not in school. (Yes—No.)
6. There are 16 children in our room today. (Yes—No.)
7. The sink is clean. (Yes—No.)
8. This is September. (Yes—No.)
9. The trees are bare. (Yes—No.)
10. It is 12 o'clock. (Yes—No.)

DO

1. See with your eyes if the above things are TRUE, then CROSS OUT the wrong word.

2. READ for honor work these stories found in books in library corner:

(*a*) Eyes and No Eyes.

(*b*) Little One-Eye, Little Two-Eyes, and Little Three-Eyes.

(*c*) Who Hath Seen the Wind?

(TEACHER)

LESSON 8

Aim of this lesson

To direct the child's attention toward the field of information close at hand, and about which he can learn much through the sense of hearing.

1. Ears: number, position, use, care of; precautions at play.
2. Keen ears, defective ears, deaf ears.
3. Sense games (eyes closed) to detect sounds in room.
4. Call attention to intensified sense of hearing in blind people.
5. Sounds we can hear: Voices, nature, music, etc.
6. How deaf people learn to read:
   (*a*) By sign language.
   (*b*) By lip reading.
7. Make clear pronunciations of words (and maybe sentences) without audible voice to emphasize the possibilities of lip reading.
8. Let the children talk of situations which arise—
   (*a*) Through failure to hear.
   (*b*) Through failure to heed what we hear.

(PUPIL'S PAGE)

LESSON 8

READ

1

How dreary would the meadows be
In the pleasant summer light,
Suppose there wasn't a bird to sing,
And suppose the grass was white!

2

And dreary would the garden be,
With all its flowery trees,
Suppose there were no butterflies,
And suppose there were no bees.

3

And what would all the beauty be,
And what the song that cheers,
Suppose we hadn't any eyes
And suppose we hadn't ears!

4

Ah, think of it, my little friends,
And when some pleasure flies,
Why, let it go, and still be glad
That you have your ears and eyes.

—*Alice Carey.*

DO

You may do one of these things:

1. Read a story.
2. Read to some one.
3. Let some one read to you.

(TEACHER)

LESSON 9

Aim of this lesson

To direct the child's attention toward the field of information close at hand, and about which he can learn much through the senses of feeling, of smelling, and of tasting.

1. Ask the children to keep eyes closed tight.
2. Put into their hands a piece of candy.
3. Ask them:
   To FEEL it.
   To SMELL it.
   To TASTE it.
4. Sense games may be used involving the three senses mentioned above.
5. Play the game, "I know," or "What is it?"
   The children reply:
   I see it; it is a book.
   I hear it; it is a bell.
   I smell it; it is soap.
   I feel it; it is sandpaper.
   I taste it; it is sugar loaf.

[NOTE.—A work page is given with this lesson.]

(PUPIL'S PAGE)

LESSON 9

READ

All things bright and beautiful,
All creatures, great and small,
All things wise and wonderful,
The Lord God made them all.

Each little flower that opens,
Each little bird that sings,—
He made their glowing colors,
He made their tiny wings.

The purple-headed mountains,
The river running by,
The morning and the sunset
That lighteth up the sky.

The cold wind in the winter,
The pleasant summer sun,
The ripe fruits in the garden,—
He made them every one.

He gave us eyes to see them,
And lips that we might tell
How great is our Heavenly Father
Who hath made all things well.

—*Cecil Francis Alexander.*

DO

On the work page you will find some pictures to color. Write these words under the right pictures:

To SEE
To HEAR
To SMELL
To TASTE
To FEEL
To READ

(NOTE.—Work page follows with pictures to be colored.)

(TEACHER)

LESSON 10

Aim of this lesson

To reemphasize the work done as it has related to the field of information close at hand and about which the child has been centering attention through sense games and exercises.

The teacher chooses something to keep in mind as a secret, and the children try to discover the secret by asking questions of this character:

Can we SEE it?
Can we HEAR it?
Is it LARGE?
Can we EAT it?
Is it in my desk?
Is it alive?
Etc., etc.

By this game, children learn to know, to classify, to localize, and to corral the field of information.

(PUPIL'S PAGE)

LESSON 10

READ

For this new morning with its light,
For rest and shelter of the night;
For health and food, for love and friends;
For everything thy goodness sends,
We thank Thee, Heavenly Father.

A Child's Prayer

God, make my life a little light,
Within the world to glow—
A tiny flame that burneth bright
Wherever I may go.

God, make my life a little flower,
That bringeth joy to all,
Content to bloom in native bower
Although its place be small.

God, make my life a little song,
That comforteth the sad,
That helpeth others to be strong,
And makes the singer glad.
—*M. Betham Edwards.*

DO

Find a pretty picture and paste it here:

(TEACHER)

(Following LESSON 10)

EXPLANATORY NOTE.—At this point in the series of reading lessons the poster work is introduced. There will be 14 posters in the series, uniform in size. A number of reading lessons will be worked out with each poster. Pictures will be required from time to time for the posters and for the children's books "Read and Do", and the teacher should by this time have available magazines, papers, and catalogs from which appropriate pictures can be cut by the teacher or by the children when required. For this illustrative work in their books "Read and Do", the children should be given from time to time as many work pages as are necessary. Much material is available and children quickly and joyfully succeed in their quest for pictures. At times it may be necessary to use original drawings, or photostatic copies of plates or cuts obtained at the library. Plan some way to have the posters preserved, and keep them in view of the class.

(TEACHER)

LESSON 11

Aim of this lesson

To extend the child's horizon to include new fields of information—not near but far.

To prepare for that link which makes the remote near—and information tangible, namely, "the book."

Show the globe; let the children handle it. Talk of the shape of the earth; its size, its motions. Let the children

name the great nations and peoples living on the earth; the lands from which the children's parents have come; the lands the children would like to visit and why.

Locate the poles; the great oceans; North America.

It seems best to have poster no. 1, READING AND LEARNING ABOUT THE EARTH, already prepared by the teacher, shown with this lesson, so that the idea of poster work will be more easily understood by the children.

Excellent copies of globes and maps of the world may be found in catalogs.

(PUPIL'S PAGE)

LESSON 11

READ

READING AND LEARNING ABOUT THE EARTH

The Child's World

Great, wide, beautiful, wonderful world,
With the wonderful water round you curled,
And the wonderful grass upon your breast—
World, you are beautifully drest!

You, friendly earth, how far do you go,
With the wheat fields that nod and the rivers that flow,
With cities and gardens, and cliffs and isles,
And people upon you for thousands of miles?

Ah, you are so great, and I am so small,
I tremble to think of you, world, at all;
And yet, when I said my prayers today,
A whisper within me seemed to say—

"You are more than the earth,
Though you are such a dot;
You can love and think,
And the earth cannot!"

—*Lilliput Levee.*

DO

Find a map of the world to paste on this page.

(TEACHER)

LESSON 12

Aim of this lesson

To extend the child's horizon to include new fields of information—not near but far.

To prepare for that link which makes the remote near—and information tangible, namely, "the book."

Help the children to think about all the various ways by which people have traveled over the earth and sea and through the air to obtain the world's information.

Make a blackboard list of these ways, as the children name them. Then let the children read lesson 12.

The children find pictures for this lesson and the teacher selects and arranges those most suitable for poster no. 2.

The children mount their pictures for this lesson on the work pages "SEEING AND LEARNING BY TRAVELING."

[NOTE.—Work pages are given with this lesson.]

(PUPIL'S PAGE)

LESSON 12

READ

In the long, long ago, people did not know much about the earth.

There were many strange and wonderful lands, but the people in these lands did not know one another. Indeed, it is strange but true that the people in one land did not know there were other lands and other people. You see people did not go far from home then.

But by and by people began to travel far. Then farther and farther they went from home. Then people began to learn about other people. They learned how they lived, what they did, and how they traveled from place to place. They learned about the plants and the animals of other lands. They learned about other kinds of weather.

How glad we are that people have traveled far and learned of so many things. We will try to remember that people have traveled on foot, in canoes, in boats, on horseback, on camels, on elephants, by ox-teams, by dog train, in wagons, by train, by steamships, by electric cars and electric trains, in motor boats, in submarines, by automobiles, and by airplanes.

DO

Find pictures that show how people have traveled over the earth and sea and through the air.

Paste these on your work pages:

"SEEING AND LEARNING BY TRAVELING"

[NOTE.—Work pages follow.]

POSTER NO. 1—LESSON 11.

Poster
No. 1

READING AND LEARNING
ABOUT THE EARTH

[MAP
of
the
EARTH]

[PICTURE
of
Teacher with globe, and
child reading a book]

"The world is so full of a number of things,
I'm sure we should all be as happy as kings."

[NOTE.—Map can be obtained from Rand-McNally catalog. Picture can be obtained from *Ladies Home Journal*, April 1930, p. 46.]

(POSTER NO. 2.—LESSON 12)

Poster
No. 2

SEEING AND LEARNING

BY TRAVELING

Pictures for this poster to show what people have learned about the earth by traveling

ON—IN—BY

Foot
Canoe
Boat
Horseback
Camel
Elephant
Oxen
Dog Train
Wagon
Steam Train
Steamboat
Ship
Electic Car
Electric Train
Motor Boat
Submarine
Automobile
Airplane

[NOTE.—Pictures can be obtained from magazines and catalogs.]

Additional poster lessons for this unit of work, in connection with which "Read and Do" activities were developed by the teacher, are listed below. The details of the work are not reproduced because of economy of space, but they can be planned by any teacher who is interested in developing this activity unit with her group.

Poster no. 3: Wonderful ways of learning about many wonderful things. (Pictures for this poster to show how the world's information is transmitted, e.g., pictures, books, newspapers, magazines; letters, telephone, telegraph, radio; schools, libraries, museums.

Poster no. 4: Learning about everything by reading. (Pictures of children reading.)

Poster no. 5: When there were no books. (Picture of one telling a story to children.)

Poster no. 6: A. Old ways to tell old stories without words. (*a*) A notched stick. (*b*) A Peruvian Quipi (knotted string).

B. New ways to tell new stories without words. (*a*) Traffic light—red. (*b*) Traffic light—green.

Poster no. 7: Early picture-stories. (Picture, Pictured History.)

Poster no. 8: Stories on clay, wax, and stone.

Poster no. 9: Stories in hieroglyphics from the land of Egypt. (Pictures of Egyptian hieroglyphics, obelisks, pyramids, other Egyptian relics.)

Poster no. 10: Reading and writing by use of an alphabet. (Pictures of English alaphabet, Braille alphabet, Cree Indian alphabet.)

Poster no. 11: The art of printing. (Pictures illustrative of poster subject, including John Gutenberg; early, later, and latest printing machines, etc.)

Poster no. 12: The evolution of a book. (Pictures of papyrus rolls, scrolls, unbound folded sheets, tied sheets, laced sheets, bookbinding in its various phases.)

Poster no. 13: The world's greatest book. (Pictures of Bibles, open, closed, and in stacks.)

Poster no. 14: Reading good books and learning about everything. (Enlarged kodak pictures of Luckey School Special Class, reading period.)

SELECTED REFERENCES AND MATERIALS

THE AMERICAN EDUCATION PRESS, INC. My Weekly Reader, 40 South Third Street, Columbus, Ohio, and 1123 Broadway, New York City.

CROWELL PUBLISHING CO., Springfield, Ohio. Pictures for illustrations and for posters.

GAYLORD BROTHERS, INC. Bookcraft. Syracuse, N.Y., Gaylord Bros., 1926. 32 p.

MAXWELL, MARJORIE. The story of books up through the ages. New York City, Harper & Bros., 1928. 79 p.

NATIONAL ASSOCIATION OF BOOK PUBLISHERS. Leaflets and posters. New York City, 347 Fifth Avenue.

NORMAL INSTRUCTOR AND PRIMARY PLANS. Related articles; September 1929, November 1930, January 1931, March 1931.

Perry Picture Co., Malden, Mass. Pictures for illustrations and for posters.

SNOW, BONNIE. Industrial art textbooks. Grades 1 to 8. New York, the A. S. Barnes Co., 1919.

VAUGHN, SAM JESSE. Printing and bookbinding for schools. Bloomington, Ill., Public School Publishing Co., 1919. 62 p.

WILSON, ROBERT NOBLE DENISON. Books and their history shown to the children. New York, Thomas Nelson & Sons, 1930. 112 p.

WINSLOW, LEON LOYAL. Elementary industrial arts. New York, The Macmillan Co., 1928. 335 p.

EDUCATION OF EXCEPTIONAL CHILDREN

Available publications of the United States Office of Education

Order from the
Superintendent of Documents, U.S. Government Printing Office
Washington, D.C.

1. EDUCATION OF EXCEPTIONAL CHILDREN
   Bulletin, 1933, No. 2. Biennial Survey of Education in the United States, 1931–32, chapter VI. 10¢.
   Bulletin, 1931, No. 20. Biennial Survey of Education in the United States, 1928–30, vol. I, chapter XI. 10¢.
2. TEACHERS' PROBLEMS WITH EXCEPTIONAL CHILDREN
   Pamphlet No. 40, I. Blind and Partially Seeing Children. 5¢.
   Pamphlet No. 41, II. Gifted Children. 5¢.
   (Other pamphlets in this series to follow)
3. ORGANIZATION FOR EXCEPTIONAL CHILDREN WITHIN STATE DEPARTMENTS OF EDUCATION
   Pamphlet No. 42.
4. GROUP ACTIVITIES FOR MENTALLY RETARDED CHILDREN— A SYMPOSIUM
   Bulletin, 1933, No. 7 (in press).
5. ADJUSTMENT OF BEHAVIOR PROBLEMS OF SCHOOL CHILDREN
   Bulletin, 1932, No. 18. 10¢.
6. PARENTS' PROBLEMS WITH EXCEPTIONAL CHILDREN
   Bulletin, 1932, No. 14. 10¢.
7. OPPORTUNITIES FOR THE PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN
   Bulletin, 1931, No. 21. 5¢.
8. PUBLIC SCHOOL EDUCATION OF ATYPICAL CHILDREN
   Bulletin, 1931, No. 10. 25¢.
9. THE SPEECH DEFECTIVE SCHOOL CHILD
   Bulletin, 1931, No. 7. 10¢.
10. SPEECH DEFECTS AND THEIR CORRECTION
    Pamphlet No. 22, 1931. 5¢.
    (For teachers, parents, and pupils)
11. SCHOOLS AND CLASSES FOR DELICATE CHILDREN
    Bulletin, 1930, No. 22. 20¢.
12. EDUCATION OF CRIPPLED CHILDREN
    Bulletin, 1930, No. 11. 20¢.
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