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ABSTRACT

Designed as a helpful guide and "how-to-do-it" outline for those on the Navajo Reservation who work with children, this guide is arranged to offer quick reference and simple projects requiring the minimum of materials. The projects are designed to meet the Navajo child's art needs based on the belief that the art program of the elementary school should concern itself basically with four major avenues of personal growth and development: (1) the growth of aesthetic awareness and sensitivities, (2) the acquisition of art skills, (3) creative and critical thinking, (4) individual and personal expression. The document includes the following: program scope, need, philosophy; roles of the administrator, classroom teacher, and parents; and art appreciation activities for kindergarten through second grade, third through fifth grade, and sixth through eighth grade. The following subjects and activities are treated in this guide: the elementary art room, murals, puppets, lettering and postermaking; recipes, modeling materials, paper sculpture, carving media, sculpturing media, cleaners and thinners, bulletin boards, paper-mache, drawing media and tools. Among other topics are: paper-mache sculpture, painting, crayons, colored chalk, transparent water colors, inks and dyes; printmaking, weaving and a selection of general projects. Exemplary exercises, illustrations, and lesson plans are also included in the guide. (RTS)

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DO NOT BE AFRAID TO TRY

ANYTHING NEW

EXPERIMENT!

EXPERIMENT!

EXPERIMENT!

FORWARD

This book is intended to be a helpful guide and "how-to-do-it" outline for those on the Navajo Reservation who deal with children. Due to the lack of trained art personnel, the classroom teacher and/or dormitory aide finds himself with the task of teaching creative art techniques and projects. This guide is set up in such a way as to offer quick reference and simple projects requiring the minimum of materials; the projects are designed to meet the needs of children of various ages.

The back of some pages were left blank --- this is to give you space to take notes, make observations, or add information as you experiment with the projects. After one year of use, the art committee would like feedback as to the usefulness of this guide. Supplementary material will be added during the year to keep your guide up to date.

It is sincerely hoped that this guide will meet the needs of those using it and will provide a reference for those who think they are unable to teach art.

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SCOPE OF THE PROGRAM

The art program of the elementary school should concern itself basically with four major avenues of personal growth and development:

1. The growth of aesthetic awareness and sensitivities.
2. The acquisition of art skills.
3. Creative and critical thinking.
4. Individual personal expression.

Aesthetic awareness and sensitivities must comprise a carefully planned portion of the program, supplementing the somewhat mechanical learnings connected with skills and techniques. In order to produce expressive artwork themselves, children must learn to respond with pleasure and understanding to the beauties of nature and of man-made creations. Nature walks; visits to museums and art exhibits; critical examination of traditional crafts, fine furniture, glass, fabrics, and ceramics; and study and discussion of great paintings, sculpture, and architecture all provide opportunities to sharpen aesthetic awareness and sensitivity to beauty. Guided experiences in these many facets of art appreciation will help children to develop their own artistic creativeness.

The concern for teaching the skills of drawing, painting, sculpture, and design is an almost universally accepted feature of the elementary art program. The need for frequent exercise

of the child's natural abilities in these areas should be equally apparent. The child's skills grow only with repeated and intelligently guided experience. The teacher builds on the foundations of natural ability and teaches a rich variety of skills and techniques, not as ends in themselves but as ways of helping the child to give form and substance to his creative ideas.

With the constant growth and accumulation of human knowledge expanding far beyond the learning capacity of any individual, one of the prime roles of today's schools must be teaching children how to learn. Art, with its peculiar demands of creativity and individuality, can contribute substantially to the general intellectual growth of the child by providing opportunities for individual problem solving, critical examination, and intuitive thinking.

Finally, the program must be broadly conceived to allow for individual personal expression. The teacher should never plan so closely or visualize the end results so completely that the child will be denied his right to deviate from the expected in his artwork.

Art teachers must be capable of teaching art skills and of awakening and stimulating art sensitivities. They must be interested in provoking creative and critical thought, and be broadly tolerant and appreciative of individual expression.

WHAT MAKES ART UNIQUE?

Any subjects matter worthy of inclusion in the elementary school program must afford the child broad opportunity for personal and intellectual growth. The distinct and special growth potential which art holds for the growing child is one which may not be clearly understood, even by adults who work with children. While the roles which "art activities" can play in the implementation of other subject matter areas are easily demonstrated, the central and unique values of art education are less obvious but far more important.

Essentially, art is both a process and a product. Physical, intellectual, and emotional activity come into play when the child manipulates art materials and a "product" evolves which is visible and tangible, and which may, for a period of time, be of enormous value to the child as his own personal expression and property. Examine a single, simple art experience in which each child in a class is asked to paint a picture of "My family and myself."

Each child might be supplied with a piece of paper, several colors of tempera paint, water, and a brush. At this point, the sameness of each child's experience terminates. Although each child's actions and thoughts proceed intuitively and principally without verbalization, the number of questions he asks himself, the personal relationships he examines, the visual observations he makes, the emotions he expresses, and the design problems which he solves are fantastic in number and variety.

For example, as he works, he might ask himself the following questions: "What color paint will I use first? Where will I place my first brushstroke? Whom shall I paint first? How big are Mother and Father? Who will stand next to whom? How important am I in relation to my brothers and sisters? What kind of clothes do we wear? What other colors shall I use? What colors are happy or sad; seem near or faraway; loud or soft; warm or cool? How can I make the dog look fuzzy? Shall I fill the whole paper with people, or should I show how our home looks inside? Can I paint yellow spots on a blue dress while the blue paint is still wet? What colors can I mix to make skin color? When is the picture finished?"

Although the teacher may occasionally give suggestions, he cannot possibly anticipate or answer even a small fraction of the questions, and the burden of thought and action falls on the individual child. Happily, children possess an inborn ability to make "right" choices and to steer courses of action that are satisfying and personally expressive for them. Fortunately, the process can be aided and encouraged by a sensitive teacher without the need for imposing adult solutions and directions.

Few, if any, other areas of the curriculum provide such rich experiences in problem solving, critical examination, aesthetic awareness, and personal expression. These are some of the things which make art unique.

TESTING AND MEASURING ART

Scientific and educational research seems to indicate, with ever-increasing frequency that anything which exists can be measured. It is said that anything which can be seen, felt, tasted, smelled, or heard may be objectively examined and assigned a systematic value on a standard scale of measurement. Hence, it is not surprising to learn that a number of sincere efforts have been made to devise ways of testing and measuring the quality of art. Nor is it surprising to people who are aesthetically sensitive to learn that no valid tests and measurements have yet been discovered for art.

Yet the sincere teacher of art is vitally concerned with the success of his program in terms of individual child growth. Frequent subjective judgments are necessary and useful in furthering the development of children's art skills and sensitivities. A successful experience in art provides a feeling of pleasure and pride for the child. Other people can similarly react with enjoyment to the child's work. Teachers' judgments of the work should be spontaneous and enthusiastic if they are to be useful in furthering the child's growth in and enjoyment of art. Measurements of the child's achievement at report card time are of very doubtful value and may even seem to be a threat to the child if they assume the form of numerical or letter grades.

On the practical side, it should be remembered that the typical elementary school art teacher works with several hundred

children. It would be an impressive feat to remember each child's name and face and presumptuous to think that any but the most subjective evaluation could be placed by the art teacher on the works of achievement of each child.

If the reporting system of the school requires an indication of each child's growth in each subject area, it is best to assign only a notation of satisfactory or unsatisfactory performance. Also, these grades should be assigned by a teacher who is truly aware of each child's accomplishment. In some cases, this may be the art specialist; in other cases, it may be the regular classroom teacher.

"TALENT"

If talent is defined in its simplest dictionary sense as "a natural capacity or gift," it would be difficult to find many elementary school children who are not talented in art. On the other hand, if talent is "outstanding aptitude and superior ability in artistic pursuits," it would be difficult, if not impossible, to identify the child who is talented in art. All children possess some talent in art. Many children show marked talent.

Talent, as such, however, should not be the primary concern of the elementary school art program. That is, the program should not be so constructed as to single out specially gifted children or to provide instruction which would develop the art potential of these few youngsters at the expense of the majority. On the contrary, the program should provide opportunities for each child to achieve a sense of personal satisfaction in art, regardless of whether he has been identified as a "talented child."

If each child is to develop fully within the limits of his talent, it is important to refrain from building up one or two youngsters in each group as "the class artists." The teacher should encourage the development of each child's "natural capacity or gift" with the knowledge that, with judicious encouragement, the child with "outstanding aptitude and ability" will grow in at least a generalized fashion, what constitutes artistic talent in children. Talent must not be equated with the ability to

draw or paint in "correct" and realistic proportions and perspective, or the ability to copy accurately from nature, photographs, or the work of adult artists. The former may be only an indication of general intelligence, and the latter simply evidence of good eye-hand coordination. The sort of talent to encourage may indeed involve certain aspects of visual perception and eye-hand coordination, but it centers more insistently about the ability to comprehend the visual world, to interpret this world in terms of individual experiences, and to create new and personally expressive visual forms as a response to the stimuli.

In teaching art in the elementary school, the teacher need not be constantly mindful of who is "talented" and who is not. As long as he tries to recognize achievement and to praise a child whenever his most recent performance clearly exceeds his earlier successes, there is no need to worry about developing talent. Under these conditions, talent has a remarkable way of developing itself.

HOLIDAY ARTWORK

Children's artwork reflects all important aspects of their world of experience. Hence, as long as we celebrate national and regional holidays of whatever nature they may, we will probably continue to enjoy the presence of pumpkins, black cats, turkeys, Pilgrims, Santa Claus, lace-doily-hearts, and Easter bunnies in childhood art. These time-honored symbols, however, should never take the form of teacher-directed clichés. There is nothing intrinsically wrong with holiday subject matter, provided that lessons related to it are presented in such a manner that the children are able to make individual and inventive statements in art as a response to the built-in excitement of the holidays.

Under no circumstances should "patterns" be used to make "cute" holiday presents for the parents or to mass-produce decorations for the school. Patterns of any sort present ready-made solutions to children and preclude any exercise or development of their own creative ideas. Patterns make the teacher's role easy and the child's experience an unchallenging one. This is so at any time, not just at holiday times. Also, care should be taken that holiday art projects do not dominate art instruction at the expense of the many other important aspects of the program. The teacher should avoid, for example, spending 4 or 5 weeks in November and December making stereotyped holiday decorations: It is best to regard each holiday as a potential, but not

imperative, source of stimulation for the children's artwork.

The children should use the holidays in their artwork, but the holidays should not "use the children."

HOW DO TEACHERS TALK TO CHILDREN ABOUT ART?

Child art is a language which speaks for itself. The similarities between art done by children in Africa, Asia, and Europe, and art done by children in the United States are strikingly apparent. Also, the communication effected through art of the children's experiences, interests, and emotions is often unmistakable and eloquent. The old adage, "One picture is worth ten thousand words," is frequently quoted as justification for not discussing children's artwork with them. This line of reasoning is used too often to rationalise lack of know-how in this area.

It should not be forgotten that the spoken word is the basic means of communication. People speak about everything they do. They discuss poetry, drama, dance, literature, music. They describe friendship and love in words. However complete each of these things is in itself, greater insight and appreciation of all of them is gained through talking about them. The same is true of art. ©

The teacher of art should know the working vocabulary of art and how and when to use it to further the growth of the children's skills and sensitivities.

The teacher uses art terms carefully, but not glibly, making sure that he is not talking over the heads of his listeners.

He begins with simple terminology, and gradually builds vocabulary skills as the children grow. Facility in the use of art terms is valuable in preliminary explanations of techniques and media, in motivation, and in evaluation. Also, although generally, the art teacher will avoid actual directions while the children are working; he will often ask thought-provoking questions and draw attention to successful efforts as the occasion demands during the lesson.

There is need, also, for better communication between art teachers and other teachers and parents. Whenever the teacher talks to children or adults about art, he should be as precise as possible. Therefore, a glossary of common art terms is provided at the end of this guide. These terms should be fully understood by the teacher and used regularly with the children.

A word of caution should be interjected. Sometimes a child simply does not want to talk about his work. It may be too personal for him to discuss, and he may be so shy that discussion of his work will spoil the satisfactions of creating it. Sensitivity on the part of the teacher is required to determine when talking to children about their artwork how it will further growth and when it will be detrimental.

CONTESTS AND COMPETITION

The value of contests and competitions in art, especially at the elementary school level, is extremely limited and their potential detriment to personality growth can be very great. The argument frequently advanced in favor of art contests is that we live in a competitive society and we should condition our youngsters to this competition through all school activities, including art. This line of reasoning is faulty in at least two respects.

The argument fails to consider the nature of child art and its potential as a factor in intellectual growth and personal choices and individual value judgments as he works. His feeling of success or failure in art is closely correlated to his ability to create a visual expression consonant with his individual mental concept. Hence, the only truly desirable kind of competition is that in which a child competes constantly with himself, striving to better his last and best previous performances.

Society is highly competitive today, but to extend this competition to all aspects of the child's life is not at all desirable. In fact, sociologists and mental hygienists indicate that the degree of competitiveness in modern society is excessive, engendering enormous amounts of personal anxiety and mental illness.

In contrast to contests in art, exhibits of child art may be valuable in the school art program. School, local, and regional exhibitions of child art are a combined source of motivation and recognition for the child's efforts. The teacher should avoid child art exhibits of a competitive nature which promote a few talented youngsters to the status of "school artists" and which, by omission, make losers of the rest of the children.

DISPLAYING CHILDREN'S ARTWORK

When children feel that they have worked hard and successfully, they derive intense satisfaction from showing their artwork to their peers and to adults. As an indication of his pleasure and approval of their efforts, the teacher should display work enthusiastically and with pride.

The display of their work may be either spontaneous or carefully preplanned. Opportunities for showing the work may occur in the middle of a period when something exciting happens or may occur long after the lesson is over.

The easiest and quickest display technique is the "end-of-the-period-hold-up." Each child holds his artwork high, where the teacher and the class can see it, or small groups of children go to the front of the room to hold their work while the teacher and the class comment. This device allows each child his moment of attention and requires only a few minutes.

The children also enjoy seeing the work of the entire class displayed for a day or two in the classroom. Space should be allotted, if only briefly, for this purpose. Wires strung below or above the chalkboards or classroom bulletin boards serve ideally for two-dimensional display and need not be up for more than a day or two. Three-dimensional work may be placed on tables, windowsills, or counters.

Periodically, displays of artwork should be planned for hallways and other places in the school where other classes and adults may view them. Where display space outside of the classroom is limited it is sometimes desirable to be selective about work to be shown. Students should participate in the selection and arrangement of items for display because the process of selection can be a good occasion for evaluation and discussion. Since the honor of being included in such a display can be very important to a child, the teacher should sometimes include the art of children who work diligently but who may not produce the most outstanding results.

A permanent display case is very useful to keep the entire school as well as visitors informed as to the art activities of the various classrooms. Each teacher might have the case for a week, not only to display art work but also classroom projects or other work the students have done.

Display areas can also be set up in the school offices, teachers lounges, libraries, cafeterias, and dormitories and the displays changed periodically.

Where feasible, it is also worthwhile to present an annual school-wide exhibit in the spring of the year. The materials for such an exhibit should be gathered and set aside during the preceding school months. They should be of good quality and tastefully arranged. Above all, they should be representative of the work normally done at the school.

ROLES AND RESPONSIBILITIES

Administrators

The administrator is the leader. He must know and understand the art program and its objectives. He provides the atmosphere and creates the climate in which a healthy art program can develop and flourish. His interest and leadership are important for its realization.

As a consultant to both teacher and parent, the administrator is able to interpret the place and value of art in the total curriculum.

By his recognition of the necessity for adequate teacher preparation in art, he arranges for inservice art workshops and meetings.

He sees that sufficient time is allotted and used in the classroom for art experiences.

He provides for adequate art supplies, equipment, visual aids, display space, and books, both professional and nonprofessional.

He encourages the cultural development of teachers.

Art Specialists

The art specialist directs and coordinates the elementary art program. He consults with administrators and classroom

teachers, acquainting them with the best art education practices. By planning with the classroom teacher, he arranges for a variety of art experiences in both two and three dimensions, developing visual and tactile awareness in a sequential manner for maximum application, growth, and continuity.

He will guide children in evaluating one another's work in a positive manner, encouraging their growth through the discussion of their creative efforts. He will also assist the classroom teacher in evaluating the art done in his room by pointing out the importance of defending the children's individuality and creativity.

His role is flexible. An art specialist should be available for every 250-500 students. He should teach in a designated art room or in the regular classroom where an art room is unavailable. He may possibly combine two or more classes for a type of team teaching such as art appreciation. He will also help the classroom teacher conduct art projects with the children and determine if sufficient time has been allotted for these experiences. By discussing the general program with the classroom teacher, he will be able to recommend types of art integration most valuable for specific areas.

He will see that adequate supplies, equipment, and visual aids are available for carrying out a sound elementary art program.

He will provide inservice education to classroom teachers by conducting meetings and workshops.

He will initiate good public relations in the community by promoting children's art exhibits.

He will visit art galleries and museums frequently, attend worthwhile art education conferences, and keep up with current art and art education literature.

At all times, he will uphold the highest standards of art and art education.

It is strongly recommended that an adequate art room (40 square feet per student in room) be made available in elementary schools with enrollments of 500 or more students. Such a room would prove a most valuable part of any school, especially in light of the uniqueness of the art program which activity and material centered. It has been shown that many of the basic art experiences cannot be handled in the conventional classroom.

Periods for specific art instruction must be provided at each grade level. In addition, art should be regularly intergrated with classwork. This implies a curriculum in which classroom teachers as well as art teachers cooperate and share in specific and general outcomes of education. If such a program is adopted, the arts will be meaningful and the school will reflect an art program which shows imagination and originality.

The importance of children's contact with a qualified and experienced art teacher should not be underestimated. This is the vital link in the entire art program. In addition, the art teacher has a feeling for the visual growth of the child and is able to meet general and specific individual needs.

Classroom Teachers

The classroom teacher acts as a guide for the children. His attitudes, intellectual curiosity, and aesthetic awareness influence them. It is his responsibility to understand the nature of the creative process and growth of the children in his care.

With the help of the art specialist and the teacher attempts to plan and carry out a well-balanced art program using sound educational methods seeking to understand the objectives. With the aid of the specialist, he evaluates the child's artwork in terms of these objectives, individual development, and ability. He implements good teaching in the classroom by providing abundant experiences and offering encouragement, inspiration, and constructive criticism. He reacts sympathetically to the children's ideas, helping them develop confidence in their own abilities. He rejects such harmful practices as the imposition of adult ideas or the presentation of stereotypes, quick

how-to-do-it tricks, and clichés or fads. He familiarizes himself with art materials and their uses before presenting them to the class.

The teacher strengthens the teaching of other subjects by using related art activities that do not stifle creative growth.

He displays children's artwork with simplicity, taste, and pride.

He communicates and interprets the aims of the art program to parents.

He seeks to improve himself professionally by being cognizant of good, current material on art and art education.

Parents

A child's education is a continuous process from birth. The parents' responsibility for his education does not cease when he enters school but is shared with the teachers. Parents can cooperate with them in the field of art education by accepting the child's creative endeavors, even though they may not always understand them.

Parents can help a child by showing genuine interest in his efforts, recognizing them not only as records of creative growth but also as personal statements.

Time Allotment

For a dynamic, creative art education program under the direction of a certified art teacher, sufficient time should be allocated in the school program.

A minimum of 120 minutes per week is recommended for every grade level. Art activities demand longer working time because of materials involved or integrated with other subjects in the curriculum. For activities involving self-expression, creativity, and aesthetic enjoyment, large blocks of time will be needed to follow a vital interest through to a satisfactory conclusion. In a nondepartmentalized organization, it is possible to make the individual period flexible in order to take advantage of maximum motivation and interest. In addition, a planned integrated art program should be carried on by the classroom teacher under the supervision of the art specialist. The kindergarten teacher would normally offer extensive art activities to supplement the work of the art specialist.

Longer periods give the child a sense of accomplishment, helping to hold his interest which is not always reachable in the shorter periods.

Art experiences integrated and supporting another subject area should not generally be considered time provided for the art program.

The art teacher and the classroom teacher plan jointly to provide for varied experiences in the year's program. Such planning can meet the needs of the child to help him develop personal sensitivity and reliance on his own taste and judgment, as well as a feeling of personal security.

Good Housekeeping and Use of Supplies and Equipment

The art and classroom teachers as well as students are responsible for an orderly and attractive classroom. It is an incentive to purposeful and orderly work. Children take pride in clean, attractive surroundings.

With orderly and attractive art or classrooms, training in the proper use of materials and equipment is a necessity. Children must be taught to use them properly and with respect. With unsupervised use of supplies and equipment, chaos will be the result. Students who are taught to respect materials and equipment show respect for their own work and take pride in doing their best. Therefore, it is the duty of every art and classroom teacher to have a watchful eye on the supplies and equipment. This helps make a successful art program.

For an efficient working art program, the physical facilities of the classroom are important.

Movable desks are a great convenience for drawing, painting,

and most three-dimensional activities, since they allow the pupils to move their desks in convenient clusters so that large, flat areas of working space are available for group activities.

Every classroom should have a storage space (for supplies and unfinished art products), display space, and provision for water (preferably a sink in every classroom).

The newer schools usually equip classrooms with cupboards, shelves, drawers, bulletin boards space, and a sink. With careful planning and arrangement of materials, and equipment, an art session may be started with a minimum of preparation time.

In a classroom used by young children, the arrangement of the equipment and supplies and working conditions must be the responsibility of the teacher. Older children will be able to assist in planning the arrangement or changes in their rooms. They often have good ideas about the placement of the worktables, easels, storage, cabinets, and desks.

In many older schools, classrooms were not planned for art activities. The older classrooms often lack a sink. A substitute for this is the use of portable art carts. If it is necessary to resort to pails for water, they may be used.

Among other substitutes and suggestions for classrooms which lack convenient working areas are the following:

A piece of plywood, masonite board, or a plank placed on boxes or over desks will provide large work areas. Cardboards set in chalk trays make convenient easels. Paper taped to chalkboard provides for large work areas-- for example, a mural.

Passing trays may be made from cut-down baby food cartons, with dividers left in.

Scissors and brushes, handles down, should be stored in blocks of wood or cardboard boxes with holes bored or punched in tops to provide for quick cleanup, proper care, and minimum loss.

The kindergarten needs a large working area for art activities. It also needs a great deal of room for tools and bulky materials. Kindergarten teachers must always have the supplies ready and arranged to prevent a minimum amount of confusion and "accidents."

Paper should be cut to size and arranged on a shelf in piles according to size and color.

Scrap paper should be separated as to color and saved in small cartons.

Crayons and chalk may be separated according to color.

Containers for these might be a coffee can, paper plate, cottage cheese container, or frozen food boxes.

Brushes (with bristles up) and pencils may be stored in fruit juice or other large cans.

Let the child choose his own materials.

Walking to and from the supply table allows for more physical activity. Taking turns and responsibility for materials will also be developed.

In order to carry on successful art activities, the room arrangement has to be flexible. Lack of easels for every member of the class need not curtail painting activities. Painting

centers may be arranged at the chalkboard, on tables, on the floor with newspapers, oilcloth, or sheets of plastic for protection. Paint, in small juice cans, may be placed at the work area ahead of time to avoid accidents. Keep only a small amount of paint in the cans so there won't be too much paint to spill. An average of 20 jars of tempera paint is suitable for an average size classroom. These can be returned to the work area or placed in the tray attached to the easel. A brush for each jar of paint is necessary.

To dry paintings and other flat work, a temporary clothesline may be fixed with pinch clothespins to hold the work on the line. Floor space, if out of the way of classroom traffic, provides an excellent place for drying. If the room has a large bulletin board or a cork wall, it is also an excellent place to tack the paintings.

The brushes must be washed immediately after use with soap and warm water. Gently shape and straighten bristles with fingertips and store with handles down.

Brushes which are immediately cleaned properly last longer and are always ready to use and in good shape.

If brushes are used for shellac, wipe them off with a rag or a paper towel, rinse in denatured alcohol, then wash immediately in warm water and soap.

Also, if oil or enamel paints are used, first wipe the brushes with a rag or towel, rinse in turpentine, kerosene, or paint thinner, and wash thoroughly with soap and water.

Brushes used for rubber cement should be immediately rinsed in a rubber cement thinner following directions on the label. Brushes used for tempera or watercolor painting should be soaked in warm water and soap. Glue and mucilage will clean off brushes with hot water.

Colored paper should be stored in a cupboard, and the doors should always be closed to prevent light from fading it. Never tear off the labels or the wrapping. If the colored paper is shipped with a covering on each package, open one end and pull out the necessary amount. This will help to prevent the paper from becoming disorderly and the edges torn. All other kinds of paper should be taken care of in a similar manner. Open only one end of the package.

Every classroom should have an ample supply of old newspapers. There are many uses for newspapers, not only to cover tables but for classroom art activities. Paste should be kept in glass jars; when not in use, the covers must be tightly closed. For individual pasting, a small amount of paste should be placed on a disposable piece of cardboard or shiny-surface paper. For group pasting, the small aluminum foil pie plates are excellent to hold paste.

A clay corner, consisting of a covered container full of balled clay, newspapers, oilcloth mats, and dampened sponges for quick hand cleaning, provides for a regarding activity with a minimum of cleaning up. The unused clay should be returned to the clay bin and immediately.

Expendable materials should be stored in convenient and appropriate places and should be protected from avoidable causes of deterioration or waste.

The storage space or room should be arranged in a manner which will facilitate in getting supplies quickly, taking inventory, and saving time in finding materials.

Displaying children's artwork is one of the biggest problems for the classroom and art teacher. Each child's work should be represented frequently. Most of the rooms are not equipped with adequate bulletin board space. To offset this deficiency, if floor space allows, make a folding screen from a large packing box. Remove both ends of the box and bend the sides to form a screen. Work may be displayed on both sides. Work also may be placed on unused sections of chalkboard, above chalkboards, and on seldom-used doors. Light three-dimensional work displays can be hung from ceilings and ceiling supports. Wire may be stretched across the back of room or wherever it is most convenient.

Pictures and illustrations should be selected for the benefit of the children. They should be hung where the children can see and enjoy them. Illustrative materials, charts, and children's work should be mounted on a background of a neutral color or white. Grouping related items gives them interest value and added importance.

Gifted or interested teachers may invent many temporary aids for good housekeeping and use of supplies and equipment. The teacher is the activator of an art experience for children, the link between children and art and children and material.

Motivation

Motivation is the beginning of the educational learning cycle. It is here that the teacher is placed in the most demanding role in the art program. The purpose of art education is not to produce artists or to have children make finished artwork for exhibitions. The real purpose is to encourage the child to express himself to his fullest ability.

As children live from day to day, they have many experiences. Their experiences arise from life at home, at play, at school, and in the community in general. As a result of his contact with the world which surrounds him and with his associates, the child's intellectual curiosity may be stimulated and his feelings aroused.

To each new experience, he brings insight he has acquired from previous experiences. If the new experiences arouse his interest and if they have a sufficient number of elements which are reminiscent of some of his former experiences, learning should occur. If he lacks interest in the new experiences, he will probably fail to profit.

The majority of experiences which a child enjoys are suitable for artistic expression. Any situation in life which has aroused his intellect and stimulated his feelings may be considered suitable subject matter for art.

Art is a different study from the other subjects in the curriculum. In one sense it remains constant throughout the child's entire school life. From the time the child enters kindergarten until he leaves the school system, he will be occupied with only one theme--his own personal experiences.

In order for motivation to be really effective, it should be carefully planned. It should incite the child to create as well as to learn. The desire to create is based on the acute awareness of an inner need to give expression to an emotional impact. The desire to learn has its roots in an innate curiosity.

The key to understanding motivation is contained in experiences. Experiences move our inner life, leave an impression on our emotions, provoke our intellectual faculties, and provide

us with the raw materials which children use to express themselves.

There is no clear-cut motivation that can be successfully applied in every situation. The kind of motivation which an art teacher sees feasible to use depends a great deal on each particular class.

The art teacher must be a very flexible person able to establish a rapport with each group of children.

When the interest is built, it must relate to the needs and abilities of those being taught. Motivation creates a situation which allows for questioning, discussion, the handling of materials, and a complete understanding of the problem at hand. Using discussion for motivation purposes should be only long enough to sufficiently do the job. Motivation, to be of value, should be as interesting and informative as possible. The teacher must be conscious of his vocabulary and its appropriateness to the grade level.

Remotivation throughout the entire problem (whether it lasts for one period or 3 weeks) is necessary. This continuous building and holding of interest is imperative if the experience is to be at all worthwhile for the students. Both group and individual motivation are important. Through motivation, the teacher plays a very important role in the success of a creative art program.

If motivation is meaningfully developed by the teacher, the spirit soon invades the atmosphere and becomes part of the children's actions. Children will respond spontaneously to the teacher's enthusiasm; to his ingenuity in finding new ways to use ordinary materials; and imaginative discussions that open doors to creative thought and expression.

The teacher should always keep in mind that children are full of ideas but that they differ in interest, ability, and initiative. Also, he must be aware of the child's limited interest span and be ready with a variety of interesting activities.

Motivation in art must be built upon the child's interests. With most children, the teacher may rely entirely upon materials themselves as a motivating force for creative activity. Motivation may come from many sources. Children are interested in their surroundings--a walk, a windy day, a field of grass, a story, a dream, a television program, a holiday, imaginary trips to outer space, science, current events. The list is endless.

Sometimes the teacher should make arrangements for new experiences which would be suitable for the grade; for example, a visit to the farm, dairy, park, excavations, new homes, zoo, and so on. Before the trip, a discussion should be held with

the class concerning some of the salient features to be observed. Upon return to the classroom, another discussion should take place, after which expressive work should immediately begin.

The result of high motivation can be discerned in many ways, both visual and verbal. Motivation is almost always reflected on the faces and in the actions of the children.

With guidance and encouragement, the teacher can stimulate pupils to establish goals for themselves in the successful completion of their creative artistic acts. He can also stimulate his pupils to express fully their ideas and experiences in their own way.

APPROACHES TO EVALUATION

The area of evaluation in art education has gained importance in recent years. Methods as well as aims of evaluation have changed. The most important element to evaluate is not the work of art but the growth which the individual experienced during the process of producing it.

Evaluation is an essential part of learning. Care must be taken to protect the child's individual expression. If praise is given for one way of working, be sure that other ways are given equal praise.

Evaluation in the arts is concerned with measuring growth as evidenced by behavior change. Since children vary in their potentialities, develop at different rates, and differ in so many aspects of their background of experience, there can be no fixed standards of achievement for all children at any one grade level.

In gathering evidence of such growth, attention should be focused upon the behavior of a particular child in a particular situation as compared with his past behavior in similar situations.

Children usually believe in things which have proved helpful. The present emphasis in evaluation is upon building self-confidence, preserving the creative approach, adopting the

interpretation to the maturity of the children, and helping them to become independent. Without evaluation, children tend to feel that their artwork is not fully recognized.

Through evaluative discussions, children have practice in expressing opinions and a chance to become more articulate about art. It is encouraging to see the improvement that results in creative work and the progress made in better understanding art values when there is a free give-and-take during an art evaluation. Perhaps the best outcome of all is the effect on the morale of children as they see for themselves that artwork is recognized and not thrown into a cupboard or wastebasket at the end of the lesson.

An evaluation period is a welcome relaxation for children. After the intense concentration that creative work demands, it is relaxing for them to do a little chatting with their classmates and the teacher.

In creative work, children draw upon many things within their experience; things they have seen, heard, or read, as well as what they imagine. Some work immediately appears mature and complete while other work looks immature and incomplete.

Their efforts are serious to them and certainly should never be pushed aside because the symbols do not meet certain accepted standards of how things really look.

There is a natural desire for expression in the primary grades. The child's work is strongly personal, abstractly symbolic, spontaneously emotional, usually involving storytelling subjects. It portrays a clear statement and coherent design. The forms are large, simple, flat, and fill the space. The child likes to use color, and his colors are gay and unmixed. The teacher must forget adult standards and use these facts, along with his general knowledge of the child's makeup, in evaluating art expression.

Primary children are accustomed to talk over and enjoy everything they do, and art is one of the experiences that provokes lively discussions. Many delightful sentences, stories, and short poems develop at this time and are often attached to the picture they describe. This pleases little children and gives added importance to their artwork.

As students enter the realistic stage and begin using techniques consciously, some constructive class evaluation may be very valuable. Such leading questions as "How did Mary make the road go back into the distance?" should be asked. This method can be a means of recognizing certain principles of optical perspective. Concepts so gained are far more meaningful to students than the same principles presented by the teacher.

There are accent and sparkle from the fourth grade up. The child's ability to criticize his own product usually exceeds his skill. Expression, rather than technique, should be the criterion for judging the child's art at this level.

Evaluation should take place many times during a learning situation. It is effective at the beginning of an experiment when there is a need to clarify purposes. It is essential when difficulties arise and a child senses a need for help and asks for it.

Criticism should be given in terms that the child understands and in a manner that will build self-confidence; it should help the child to form judgments for himself, as well as to make choices in regard to art objects.

While the process of evaluation goes on during the entire learning situation, it is still important to take time at the end of each activity for thoughtful evaluation of each experience.

With an open mind, the teacher should appraise the value of the activity to the child.

- * Did the activity stimulate his thinking and creative imagination?
- * Did it increase his awareness of a sensitivity to beauty?
- * Did it offer him an opportunity for creative expression?
- * Did it stimulate his curiosity and desire to explore materials?

- * Did it increase his confidence in his ability to express his ideas in drawing or with various materials and media?
- * Did it extend his ability to use each element of design--line, mass, color, and texture?
- * Did the work show improvement as compared with work done previously?
- * Did he do his best at his level of ability?
- * Did he grow in independent thinking?

The most effective form of growth measurement is self-evaluation. As the children grow older, they need and want to know the reason why something they have done, or the way they have done it, is good, mediocre, or less than satisfactory.

A skillful art teacher, in conversation with an individual engaged in a creative activity, can draw forth comments about the process and product which were not previously realized on a conscious level. Sometimes a statement such as "Now, tell me just what you are trying to do" will start the flow of thinking which results in self-evaluation. Effective evaluation is based upon the individual's understanding of his work. One basis for the evaluation is the knowledge of the child. As complete a knowledge as possible is essential for the interpretation of behavior.

The teacher should be aware of the cultural pattern of the community in which a child lives. He must have some indication

of the child's stage of mental, social, emotional, physical, and creative development. Since children vary in their potentialities, however, they develop at different rates and differ in many aspects of their experience.

There are many ways or techniques for collecting evidence of growth. They include:

- * Conversation with the child
- * Samples of artwork created by the child
- * Tape recordings of lessons
- * Record sheet-- recording brief statements for each child
- * Class discussion
- * Anecdotal records
- * The class book-- book of samples of work from every member of the class
- * Individual folders-- children select their best artwork
- * Photos and slides
- * Art teacher-classroom teacher conferences

The extent to which art abilities may be measured scientifically is still a controversial issue; authorities indicate, however, that the teacher of art should not place too much reliance upon tests.

Sometimes the teacher may wish to use a test to discover whether or not the pupils have grasped some part of the art program. He may present a few questions based upon the pupil's

knowledge of a specific medium, of facts surrounding an artist's life, or of a technique in using color.

Evaluation should not be an end in itself. Evaluation is an integral part of the complete learning situation and is, therefore, a continuous process. It should be a means of encouraging growth in the individual. It is essential that both teachers and pupils participate in it together, using art terminology, building vocabulary skills, and confirming the learning which has taken place.

Evaluation is also used as a means of reporting pupil progress to parents, teachers, and school administrators.

The numerical grade which the teacher may have to give to students should not be a stopping point but a means of encouraging continued interest and development in art.

APPROACHES TO ART APPRECIATION

Art has many phases and functions in the daily life of every person. Appreciation of art is something we live with every day of our lives.

The real aim of art appreciation is not to learn the names and dates of famous masterpieces but to develop genuine appreciation and sensitivity toward beauty. The child, from his own experiments with media and subject matter, can be led to a finer appreciation by observation. The child is surrounded by works of art, both natural and manmade. It is for the teacher to awaken in him an awareness of the truly good art in his world so that he can observe it with his eyes, mind, and heart.

Trips to museums, woods, and fields are ways to add meaning to art, but building appreciation and good taste should be part of the child's everyday life in school. Appreciation and enjoyment are interchangeable and contribute to the art experiences of children. From very small beginnings in any learning, children may be guided into richer experiences through skillful teaching.

The teacher must keep in mind that some of the child's progress rests upon what he has been accustomed to in his home and environment and the attitudes of his parents toward art. Appreciation comes through knowledge and understanding. It is

a gradual, active process. It should be a satisfying, as well as a growing, experience. Repeated contacts with fine examples of paintings and all the crafts are necessary for growth in appreciation.

Both creative art and appreciative art are powerful factors in developing the habits, attitudes, skills, and abilities of the child. Such abilities are not acquired by rote but as the result of gradual acquisition of sensitivity and art concepts.

The appreciation of art is intensely personal. For the young child with his limited background of experiences, it is based broadly on beauty.

It is nature, primarily, that increases his awareness and provided a source of inspiration. Climbing a tree, swinging from the branches, feeling the bark, seeing the designs, patterns, and colors of its foliage are common experiences that evoke immediate reactions and increase the child's power of observation. The child who knows the thrill of exploring a tree can feel again, through his own or an artist's rendition, the rough bark, the cool shade and the velvety texture of a leaf. The picture means something to him. From his own experiences, he responds with his own mind and emotions.

Appreciation cannot be directly taught. It is dependent upon the background of the individual's experience. It is the responsibility of the teachers to further cultivate the percep-

tual ability upon which appreciation is dependent and to continually encourage the child to see and feel the art qualities in all experiences. Teachers should cultivate taste in each child to love beautiful things and to enjoy the aesthetic qualities of their experiences. The teacher should educate the eye to see with feeling and understanding. He should make the child self-critical and socially responsible for the appearance of his home, school, and community.

The teacher's method of approach will permit all pupils to exercise their own judgment and to develop their own taste for beauty. He will encourage individuals to grow at their own rate by providing opportunity for individual attainments.

The teacher continues to enlarge the student's responses to visual experience because the more contacts the child makes with good art products, the more sensitive his feeling will be about what pleases or displeases him.

Helping the children to realize their potentialities for aesthetic growth is a challenge to the teacher. Appreciation and enjoyment of art can be made a daily experience in the classroom when the circumstances are favorable and the teacher is sensitive to art values. Through wise guidance, the place of art in life becomes increasingly significant to children as they mature.

Aesthetic experience in a class never needs to be stereotyped or repetitious. There is such a vast wealth of art expression for a teacher to draw upon that he can keep his own interest as fresh as that of the children.

As his interests broaden, he will wish to vary his approach to art appreciation. The very act of living in a changing world will prevent his point of view from becoming static.

To develop appreciation fully, the teacher must help children discover art qualities in every aspect of life by educating their eyes to see, by stimulating them to feel deeply, and by evaluating their experience with understanding of art values.

Among the required visual aids are prints of pictures, pictorial reproductions of other art forms, filmstrips, slides dealing with a variety of art topics, and some actual works of art in two- and three-dimensional forms.

Today any school can possess a good collection of prints of pictures and pictorial reproductions of other art forms. Many stationery stores, bookstores, and artist's supply firms act as outlets for both American and foreign imports.

Books containing excellent reproductions are also available. Popular magazines, such as Life and Look, frequently devote pages, in both color and halftone, to reproductions of art. Books on art for children, unfortunately, are very rare.

In recent years, several companies have produced some excellent films. These art films are designed to fulfill various purposes. Many films are made to stimulate children to produce art and to assist in mastering various techniques.

Before using a film, the teacher must preview it and then decide how effective it may be. Next, the film must be suitable to the children's level of understanding and maturity. The film should be chosen because it is closely related to the children's immediate interests. The same criteria apply to slides and filmstrips.

Nothing can actually replace the original work of art. Therefore, it is most desirable that children should have the opportunity of observing original works of art. The most obvious source is the gallery and museum schools.

Before the class pays a visit to a museum or gallery, the teacher should take a trip alone to become acquainted with the building and collections, and to make arrangements with museum officials for the children's visit. Before leaving school, the children should be given instructions and have some idea of the purpose for their trip. Trips like these are recommended for those pupils who are sufficiently mature. After the visit, students should not be expected to make long or detailed reports or drawings. If it is impossible to make the trip to the gallery, loan services are available.

Another possible source of original art forms is to invite local artists and craftsmen to come to school.

Finally, it is possible the school can set aside some money to purchase an original work of art.

The study of practical objects, such as cups, saucers, kettles, teapots, knives, forks, telephones, and chairs, can do much to help children to develop an appreciation of art and to elevate their taste. Children often find a discussion about such articles interesting because these are the things with which they come in contact in their daily lives. The beauty of nature can also be part of the classroom with plants growing on the windowsill or wild flowers arranged attractively in a vase.

Children in the upper grades should be in charge of the classroom appearance through committees. They should plan to keep the room interesting to look at and an easy place in which to work.

The following activities will help to build a background of sensitivity to beauty and awareness of art elements and principles:

- * Observating, walking, viewing nature films
- * Experimenting with materials
- * Noticing and enjoying objects, beautiful in color, form, and texture.

- * Observing nature forms
- * Observing objects brought into the classroom

- * Choosing vases for flowers
- * Planning the display of children's artwork
- * Selecting attractive objects in wood, glass, textiles
- * Collecting selections of stones, colored leaves
- * Selecting reproductions of great pictures

Appreciation is a vital part of all art experiences. In each expressive act, we make selections and choices. We criticize and evaluate. We seek to extend our comprehension and feeling for better art structure and content. Part of our daily lives includes simple acts of selection, such as choosing the proper tie, dress, color of wallpaper.

The spiritual values of life find expression through the artist's creative effort. Children with frequent opportunities to view great creative work will strengthen their own understandings as they mature and find meanings that lie beneath the vocabulary of art.

ART APPRECIATION ACTIVITIES

For Kindergarten Through Second Grade

1. Suggestions for introducing paintings:

Children enjoy seeing their own paintings and drawings displayed in the classroom, but should also have the experience of viewing works of people they do not know. A few well-chosen reproductions of paintings, or possibly originals, by fine artists can be exhibited in the room from time to time. The children may want to discuss them informally, or questions may be asked by the teacher. Recognition of subject matter should be of secondary importance to the child's general response to the painting itself. Some questions that may be asked are:

How does he feel when he looks at the work?

What kinds of lines and shapes are there? Are they quiet? Exciting?

How do the colors affect him? Do they make him feel happy? Sad?

What does the surface look like? Smooth? Rough?

How do they think the artist applied the paint? In thick brushstrokes like finger paint? Or like thin watercolors?

Although some classroom teachers feel the need for displaying illustrative material of a seasonal or holiday nature, it should be pointed out that some of these illustrations are of poor aesthetic quality. Children can become confused with this type of decoration when compared to good art. Frequent weeding out of picture files is strongly urged.

2. Suggestions for the appreciation of sculpture

In a similar manner, sculpture can be enjoyed by the children. A three-dimensional form can be placed upon a low table for them to touch and walk around, viewing from all sides. Discussions may follow in a manner comparable to those prompted by the study of paintings.

What do you think of when you see the sculpture? Does it make you want to laugh? Be quiet?

Notice how the shadows change as it is turned in the light. What does it feel like? Does it have a rough or smooth texture?

What kind of shape is it? A happy shape? A scary shape? A sad shape?

As with illustrative material from picture films, it is possible to find sculptural forms of doubtful taste in classrooms. The little animal figurine with a scooped out back in which a cactus has been planted is a classic example. Although some may consider it "cute" a young child might confuse this with good art. It is wise to eliminate such articles for their lack of aesthetic value, since the child easily absorbs from his environment, especially in the field of appreciation. There is no reason why a piece of sculpture should try to be something it is not. An animal figurine can be enjoyed for its own sake, without the addition of a plant protruding from its back. There are many planters available, of beautiful form, designed simply and honestly for the express purpose of holding plants but the

combination of both planter and figurine usually lacks aesthetic appeal unless of exceptional quality.

3. How we can look at nature:

The delightful nature collections brought to school by children for placement on the science table are an endless source of wonder and beauty. The designs on shells and tree bark, shapes of stones and leaves, and the textures of these treasures are inspirations for many informal appreciation lessons. "Looking walks" may be taken as a class, with each child given an assignment of nature items to find and bring back to the room for a sharing period. Perhaps three objects would be required--something smooth, something rough, and something with an unusual or different shape. The children also may be asked to describe a visual experience they enjoyed during the trip, such as a pattern of smoke from a chimney, the design of a puffy cloud, the unusual colors of flowers, the reflections in a puddle left by a recent rain, the twisted form of an old tree, or the lazy pattern of new, green tree leaves against a clear, blue sky.

4. How we can enjoy things we live with:

Children may like studying architecture, too. The buildings they live in may or may not be conducive to the study of good art, but there may be some handsome structures in the area which possibly could be visited. By taking more "looking walks" for the purpose of discovering well-designed entrances and doorways,

different roofs, unusual windows, and interesting supports or columns, the children can be introduced to the appreciation of architecture and develop a visual awareness of the beauty in their own community.

Art appreciation is not easily taught as such in the kindergarten, first, or second grades, because it is more readily absorbed by the children from their environment. It rubs off on them, the rubbing sometimes adhering more strongly than any teaching. As has been said many times, "art appreciation is caught, not taught."

5. Are the children familiar with words such as these?

carving

crafts

design

draw

experiment

finger paint

free form

line

loom materials

modeling

spatter painting

texture

mosiac

mural

papier-maché

portrait

poster

print

puppets

realism

shape

silhouettes

stencil

weave

For Third Through Fifth Grade.

1. Suggestions for introducing paintings:

In the third, fourth, and fifth grades, as in kindergarten through second grade, paintings should be discussed in terms of their lines, forms, colors, textures, and mood. In addition, it is desirable to link the study of painting with social studies where the connection is not vague or contrived.

For example, during the third grade's study of the Eskimo (or other pre-literate people) the class might study prints of the cave art paintings at Lascaux, France, or Navajo sand paintings.

Similarly, during a study of early American life and its European sources, examine some of the paintings of the "Mother Countries" of England, Holland, and so on. In addition to reacting to and enjoying the actual paintings, it would be valuable to examine the painter's role in his society. Compare a contemporary American painter with an early American painter. How do his works, his life, and his reasons for painting compare with those of his antecedents?

2. Suggestions for the appreciation of sculpture:

Original works of sculpture, whether available for classroom study or visited in museums, parks, public buildings, or galleries, provide the best base for study because children

can walk around the exhibits and experience the visual effects of such things as light and shadows. Where good sculpture is not available for study in the round, use pictures of sculpture.

A picture of a good piece of sculpture is better than an actual work which is of poor quality.

In third grade, a comparative study of Eskimo sculpture, African sculpture, Northwest Indian totem poles, and the works of contemporary sculptors such as Henry Moore and Jacques Lipchitz will provide valuable experience in correlation.

3. Suggestions for the appreciation of the craft areas:

Social studies acquaints the children with early aspects of our society and with other world forms of jewelry, pottery, furniture, and weaving. Occasionally a child's family will own something that represents a minor art from another country.

Photographs of such items are often found in pictures and news magazines. Compare and contrast examples with minor arts in our contemporary American cultures. Discuss materials, processes, shapes, colors, surfaces, and functions.

4. Suggestions for the appreciation of forms in nature:

In addition to the approach suggested for kindergarten through second grade in which children examine and enjoy objects found in nature walks, third and fourth grades may derive more benefit from linking an aesthetic appreciation of rocks, minerals,

trees, flowers, birds, animals, and other natural forms with their systematic study as suggested in the science curriculum.

5. Are the children familiar with words such as these?

architecture

motif

area

negative area

arrangement

overlap

background

positive area

balance

printing

collage

sgraffito

cool colors

shade

crayon resist

stabile

embroidery

still life

foreground

textile

grayed colors

tint

illustration

three-dimensional

intensity

two-dimensional

lettering

warm colors

mobile

warp

woof

For Sixth Through Eighth Grade

Art appreciation should be built on the experiences in the everyday activities of the children. The likes and dislikes

of the children in the upper elementary grades must be recognized, and their appreciation must be helped to progress at its own rate.

Art appreciation involves considering the various art forms and traditions, both historical and contemporary, reacting with sensitivity to their beauty and seeing how they relate to both the cultures which produced them and to the children's own living.

1. Suggestions for introducing paintings for art appreciation:

The study of world famous paintings can take place either before or during the time when the children are involved in painting experiences. Examining these paintings gives the children better insight into the problems and decisions the artist has had to make and, as a result, tends to develop a personal relationship between the children and the artist.

Children should be given the privilege of choosing the reproductions they wish to see exhibited. These reproductions may be chosen according to themes or the immediate interests of the children. Perhaps as an element of surprise, the teacher might choose some.

The class might express an interest in portraits. It is possible, with the wide selection of reproductions available, to find examples from many different periods of history and

styles of painting. For example, the class could compare portraits by Picasso, Cezanne, Van Gogh, Reynolds, and Rembrandt. While these reproductions are on exhibit, the children will have opportunities to observe many types of painting techniques, subject matter, interpretations, design considerations, and so on. Many other themes may be developed in a similar manner.

Studying various examples of great painting provides a rich insight into the arts of other people and understanding of their ways of life. The availability of printed reproductions, slides, and films is so great that the pages of history may be brought to life in the classroom.

2. Suggestions for the appreciation of sculpture:

The study of world famous sculpture can be correlated with the social studies curriculum at the same time that the children are participating in a creative experience in sculpturing. Have them study, appreciate, and absorb the beauties of the lines, forms, materials, and textures of great sculpture, but do not allow them to merely copy them.

If possible, make arrangements for the children to visit a museum or gallery to observe some fine sculpture. If this is not feasible, slides, filmstrips, and pictures are available. Seeing a slide or filmstrip of Prince Rahoetep and his wife, Nefertiti (Egypt, 4th Dynasty) is worth far more than reading a description of the sculpture.

Give the students an opportunity to study the sculpture of one or two other periods of art history. For example, discuss the words of Ghiberti, Donatello, and Michelangelo. Compare them to the contemporary sculptors -- Henry Moore, Jean Arp, and Constantine Brancusi and others.

During the viewing, discussion takes place about line, form, simplicity, balance in proportions, movement, and the variety of materials used in sculpture. If possible and convenient, invite a sculptor to visit the class.

Crafts and architecture (in a sense, functional sculpture) may be discussed in a similar manner.

3. How we look at nature:

Children need direct contact with nature. Field trips to observe, to feel, and to analyze make the child keenly aware of his environment. Bring out natural principals of design such as "unity with variety." Note the variety in the size of leaves and the color gradation in trees from the darker older leaves to the lighter, fresher greens of the new growth. Study the bark textures of various kinds of trees, and feel the difference between old and new bark. Observe the shimmering movements of a Silver Elm.

These field trips should be carefully planned with the students.

4. How we can enjoy things we live with:

Every day of their lives, children come in contact with things that are manufactured. These objects include such things as tables,

chairs, television sets, automobiles, and so forth. The study of these products can do much toward helping children develop their tastes and appreciation. Some of these objects lack artistic expression, but are no less functional, while others are both functional and beautiful. Develop the discussion in such a way that the children will become sensitive to the beautiful and reject things which are poor and unaesthetic in design.

It should be brought to the attention of children that glitter, high-gloss, and gaudy colors seldom enhance the product and never improve the function.

Children might also be given an opportunity to design and create some object which is both beautiful and functional. Field trips may also be planned to visit craftsmen's studios, shoe, furniture, or pottery factories.

5. Are the children familiar with words such as these?

applique

graphic art

sketch

ceramic

harmony

space relationship

compose

marionette

structural design

contour

middle ground

symbol

drawing

monogram

value

decorative design

pastel

varied line

etching

perspective

wall hanging

gesture

pigment

BASIC MATERIALS AND WAYS OF USING THEM

The basic materials used in elementary school art activities vary only slightly from one grade to the next. Each medium has its own peculiar properties which dictate the manner in which a child will work and the ease with which he will handle it. Few media are limited to use by one age group or another. For instance, construction paper can be used just as effectively by kindergarten as by fifth graders: Ordinary wax crayons can be equally suitable as a medium for both first graders and high school students. Oil paints are not necessarily more "grown-up" than opaque watercolors. Clay answers the expressional needs of the nursery school child as effectively as it does the needs of the mature sculptor.

The principal limitations of any art medium in the elementary school are those of safety and manipulation. In the early elementary grades, for example, the children are not expected to use toxic substances or substances requiring the use of extreme heat or very sharp tools for their manipulation.

Apart from these obvious restrictions, any material which is really available, and which catches the fancy of the child, may become a vehicle for expressing his ideas and, consequently, a potential art medium.

Caution should be taken, however, that the wide and varied use of media, sometimes called "the materials approach to art,"

is not stressed to the exclusion of the basic development of drawing, painting, and sculptural skills. The following pages discuss many varied uses of the basic art media. It is expected that classroom teachers and art specialists will use many of these material techniques, but will not attempt to employ all of them in a given year.

A new way of using a familiar medium will often provide much of the interest for an art lesson, but it is best always to provide additional motivation of a subjective nature. The teacher should not rely solely on clever techniques but use them as supplementary stimulation to the basic motivation.

THE ELEMENTARY ART ROOM

Art Room Needs

The effectiveness of the elementary art program is determined by the philosophy of the school, the quality of the curriculum, the quality of the instruction, the quality of equipment and supplies, the rapport between the students and the teacher, and the adequacy of the facilities to be used. Art room facilities are particularly important to implement a quality elementary art program.

Dimensions of specially designed art rooms range from 1,000 to 1,500 square feet. While school enrollment and class size should influence the size of the room, it should be remembered that the art program with its special needs in equipment, storage, display and work space must receive primary consideration.

Excellent facilities can help make an excellent program a reality. Pupils cannot create large, three-dimensional art forms without adequate work area and without functional storage space. The art room facilities must provide for all of the types of projects which may be possible in the art program. Equipment facilities and space should be provided for such diverse activities as ceramics, weaving, printmaking, three-dimensional design and painting projects.

The art room itself presents a unique atmosphere for creating, exploring, and developing skills that could not possibly prevail in the regular classroom.

Equipping the Art Room

The furniture within the art room may vary depending upon the scope of the program, number of pupils to use the room and needed moving-about space at work areas and facility points. (A facility point is an area of common usage such as sinks, library areas, and cutting boards.) The elementary art room should have at least two sinks. Some art teachers prefer a double-island sink while others prefer two separate sinks strategically placed at two separate points in room. Sinks should be large, deep, acid resistant with clay traps and provide both hot and cold water. Stainless steel or Monel Metal provide satisfactory surfaces. Soap containers and towel dispensers should also be provided.

A projection screen should be built into the room as well as sufficient electrical outlets in each wall. Provision should be made for darkening the room and for the storage of visual and audiovisual materials and equipment.

Storage Space

The storage problem in art rooms must be solved in terms of available space, facilities, and the art program offered.

Some schools have central storage for bulky art materials. Separate storage rooms adjacent to the art room are considered best for storing large quantities of paper, paint, and other supplies. Storage for two- and three-dimensional work-in-progress should be adequate for the number of students participating in the program.

Cabinets in art rooms should be planned for specific purposes. Storage space for wide materials in cabinets should be designed with inside measurements of at least 1 inch in excess of the size of the materials to be stored. Shelves in cabinets should be adjustable. Cabinets should have overhangs and toe space. Tops of cabinets used for work areas should be covered with appropriate materials.

Furniture and equipment should be specifically selected to fit the age level of the students using the room.

Paints, acids, and cleaners should be stored in safety cans and all such material carefully labeled. Storage of these items should be carefully planned to meet fire and safety regulations.

Perforated pressboard and various hanging devices are useful for storing tools. Large, easily manipulated drawers for large watercolor and poster board provide easy access to such materials and afford greater protection against damage to costly paper and other materials.

Floor coverings and finishes for art rooms should be selected with care because of the nature and variety of activities and equipment. Light-colored rubber, asphalt, or vinyl asbestos are often used because they are easily maintained and are resilient to work on. Hardwood, such as maple or oak, makes an attractive, sturdy, and nonslippery floor which is also suitable for art rooms.

Other Considerations

Although planning the colors and finishes of walls and ceilings for art rooms must directly involve the architect and paint consultants, whenever possible, the art supervisor or teacher should have the final decision on matters of interior color selection.

All spaces for instruction should be properly dimensioned and conditioned for the safety and comfort of occupants. In substantial measure, the educational usefulness of a building is dependent upon proper light, heat, and sound control and the aesthetics of the dimensions and finishes.

THE DEVELOPMENTAL AGE LEVELS OF CHILDREN'S ART

I. The child between the mental ages of two and four years (scribbling stage)

A. Activities

A child of this age has no apparent motor control or mental direction.

B. Kinds of scribbling

His conscious efforts produces lines drawn repeatedly from right to left or up and down. There is frequent mixing of controlled and uncontrolled scribbling.

C. Kinesthetic sensation

A child at this stage has usually no other creative intensions but to move his crayons on the paper and his enjoyment is drawn from this kinesthetic sensation and its mastery.

D. Circular lines

As he progresses through this age he discovers circular lines and slowly learns to control his hand movement enough to produce all circular lines and then to mix straight and circular lines in the same drawing.

E. Verbal description

At one time the child will verbalize to describe his scribblings: "This is a dog." This step is extremely significant because at this point his thinking has changed from kinesthetic thinking in terms of motion to imaginative thinking in terms of pictures.

F. Color

The child enjoys color but because too much of it can interrupt his scribbling which involves the mastery of motor control, it must remain of second importance to his lines.

G. Stimulation

Stimulation does not need to be provided for a child this age. If time, space, and tools are provided and the child is left alone he will develop to his fullest. If however a child offers an explanation on his own for his drawing the adult might respond in the following manner:

Child- "This is my father herding sheep."

Adult- "Where does he herd the sheep?"

"How many sheep does he have?"

"Do you herd sheep sometimes?"

II. The child between the mental ages of five and seven years (pre-schematic stage)

A. Pre-schematic stage

A child entering school for the first time may have passed through the scribbling stage or may just be leaving it. The next stage is called "pre-schematic"--- he is searching for forms to represent his new experiences and knowledge. During this search for schema or form the child has established a relationship with reality. This process is more important than the drawing.

B. Searching for form

When the child makes a circular motion for "head" and a longitudinal motion for "arms" and "legs" he is consciously searching for form. The child may not feel a need to represent all portions of the body. Constant change of form symbols characterize this period. There may be little visible distinction between animal and human form except for the number of legs.

C. Natural flow of creativity

Nothing should be done during this stage to hamper the natural flow of creativity. There will be much

drawing during this stage and the child should be encouraged to put down his own ideas for this is his way of making a statement in tangible form about things he knows. He is trying to find his own best method of doing this.

D. Passive knowledge

The child in his drawing expresses only what is actively important to him during the process of creating. Education consists to a great extent in activating the passive knowledge of the child --- the knowledge the child has, but does not use.

E. Adult "help"

1. At first the child uses shapes representing his ideas that are "geometric" in nature. An oval may represent the body and the arms and legs may both come directly from the head. Unless an adult can see the completed figure he could not recognize it as such. During this very important period, which can sometimes last through the seventh year, an adult may do a great deal of harm by trying to "help" a child draw. An adult who does this has absolutely no understanding of the process of creative growth. Some of the most common errors are:

a. Coloring books are probably the most anti-creative, stifeling material that can be presented to a child. They can cause a child to lose his mode of expression and can inhibit his freedom to express himself. Coloring books do not teach children of this age to "stay within the lines". A child of this age is not physically capable of "staying within the lines" and this is of no value besides.

b. Showing a child "how" to draw a specific form is the same as showing a child a foreign language. Children do not see things the same as adults do, and to impose adult standards upon a child, which are far beyond his reach, can make the child completely dissatisfied with his own work. He can loose faith in his own ability, his creative growth can become suppressed, and he may stop drawing altogether.

e. Simple stereo-typed outlined reproductions with step-by-step methods to copy can indicate to the child that his own ideas are inadequate. Children are full of delightful, free creativity but they may start to copy these stiff stereo-typed figures and become stifled and eventually lose all interest in drawing.

d. If an adult innocently asks the wrong kinds of questions about a child's drawing it may indicate to the child he is not performing up to the adults' standards. When the adult asks, "What is it?", this tells the child his drawing is not recognizable by the adult. In most cases the adult can not recognize a subject in the drawing. This is not the fault of the child but the fault of the adult who may look for a subject in all art. "Tell me about your drawing", is a much better way to understand a child's drawing. Besides exercising and enlarging his vocabulary this question can help the child to become more aware of his drawings and find more meaning in them.

2. An astute teacher can recognize a child who has been exposed to one or all of these errors. The child will require considerable encouragement before regaining faith in his own ability to express himself. Some times the harm done is so great that the process of rehabilitation may take quite a while.

F. Painting

1. In the early part of this stage the child will express himself with large pictures using masses of color, drips and spatters. He enjoys the feel of the brush and paint and the ability to cover large areas so easily.
2. As the child's painting ability progresses, he shows more control and the use of more colors. Details become more apparent and he often outlines his subject and fills them with color. More mixing of colors is evident but there is still no obvious relation between the actual color of an object and

the color the child uses. A man may be purple, blue, green, or yellow depending on how the different colors appeal to the child.

3. In the later stages of this period, the child should be exposed to more kinds of paint. He will find the differences between watercolors and tempera interesting and will enjoy experimenting with them. He may express moods and feelings with shades and tints instead of using pure hues. His color relationship may still be imaginative or they may be more true to nature.

G. The base line

1. The base line should appear somewhere around the mental age of seven years.
2. Space is anything outside the child's own body. In the earlier drawings of children the interrelations of things in space are not subject to any law. Since the experience of the self as a part of environment is one of the most important assumptions for cooperation and visual coordination, the child's inability to correlate things properly in space is a clear indication that he is neither ready to cooperate socially, nor has he the desire to coordinate letters or to learn to read.

H. Cutting and pasting

1. A five year old child may have some difficulty in handling scissors or in some cases he may be able to manipulate them in a fairly mature manner. The quality of scissors may have a lot to do with it, and/or if he is left-handed. At this age tearing should be used more than cutting for in this way the child does not concentrate on "cutting on the line" but can be concerned about more important things for this age -- likes making small shapes from large shapes. If the child does cut paper remember to use relatively thin weight.
2. A six-year-old should be discovering texture to use with shapes, colors, and lines. Small pieces of material, wood, and textured paper can be used to achieve this goal. This child will be able to use scissors with greater ease and should be able to cut out a whole figure instead of cutting each part separately.

3. Flat two-dimensional collages can be expanded for the seven year old by introducing three-dimensional paper sculpture. String prints, sponge and stick prints, plus simple monoprints will also increase his use of paper, paste, and paint.

I. Modeling materials

1. The use of three-dimensional materials is of great value to the five year old. Materials such as non-hardening dough or clay will offer him a media he can squeeze, squash, smash, hit, roll, pound, build up, tear down, push, pull, make rough, make smooth, round, flat, any shape he wants. This is a good emotional outlet and extremely important and valuable in communicating with his tactile senses in his second language. Usually the child has little concern about making any permanent ceramic object, but he may make a figure he is particularly proud of and the teacher may want to display it in the room for a short time.
2. The six-year-old will have more experiences behind him to draw on for his modeling projects. He can tell three-dimensional stories with his clay which allows him to work on a bigger scale than drawing. He is exploring and combinations of sawdust, asbestos, and different media gives him more opportunities for this exploration.
3. The seven-year-old's modeling becomes more detailed, growing along with his visual awareness. Some children are better able to express themselves in this manner than two-dimensionally, and it is important that they have the opportunity.

J. Subject matter of art

1. The five-year-old may freely tell about the subject matter of his art work or remain silent. Comments should not be forced from the child. The art work is a statement by itself.
2. The six-year-old usually has a variety of types of pictures:
 - a. X-ray or see-through pictures where walls of buildings or automobiles appear transparent, enclosing all the activity inside.

- b. Different time sequences in one picture
- c. Distortions of things and people important to the child --- the more important the subject the bigger it appears
- d. Foldover pictures which show two views of things --- a mesa as seen from the side, but a coral as seen from the top
- e. Animals may still have human characteristics

3. The seven-year-old is developing the smaller muscles and can work in more detail. Human figures become more complex and characters are more easily discernible.

K. Integration of art with other subject matter

- 1. Social studies --- pictorial descriptions of field trips, nature walks, and other activities provide a means of non-verbal expression
- 2. Math --- using geometric shapes
- 3. Language arts --- using collages of "feeling pictures" can expand the use of descriptive adjectives and verbal expression
- 4. Science --- a child will discover the mixing of colors and may realize the "coolness" and "warmness" of certain hues. A "collection" table can be used to convey the properties of certain materials.

L. Collections

- 1. Children can always find great interest in an object which may have little significance to an adult. Provide a collection table which can be integrated with science for things that are "nice to touch", "pretty to look at", "soft when you hold it"
- 2. The six and seven-year-olds should have a corner or interest center which can be used for collections and/or art appreciation. A long piece of material hung from the ceiling behind a table will provide a

display area for pictures (not necessarily just student work) and objects of interest to the children. This will be an area from which pleasure will be derived simply from its existence.

III. The child between the mental ages of eight and ten years (schematic stage)

A. Schematic stage

1. The human schema is the form concept of the human figure at which the child has arrived after long struggles of searching. There is no limit in the variety of such form symbols. They will use ovals, triangles, squares, circles, rectangles, irregular shapes, thick or thin lines used for body, and all kinds of shapes for legs, arms, clothes, and so forth.
2. Deviations from the above may be found in the exaggeration of important parts of the body, neglect or omission of unimportant or suppressed parts, and also during this time there may be a change of emotionally significant parts.

B. Space

1. There should now be a definite order in social relationships and the child may begin to think, "I am on the ground. We are all on the ground." Out of this comes the base line concept. (As mentioned before, the base line should appear around the mental age of seven but may appear by accident before this space concept is conceived by the child.) For the child to conceive of being apart of his environment is the most important assumption for cooperation. It is therefore highly significant to recognize that the introduction of the fundamental experience of the baseline is a clear indication that the child is now ready to cooperate intentionally. It is also a sign of the child's ability to correlate objects properly with one another. This again has its psychological implications. For instance, in reading, this very same correlation is necessary in relating

letters to one another in order to form a word symbol. We can speak of schemata, however, only when the representation of an object or space through repetition has become established.

2. Variations may still be evident in certain students pictures in the form of:

- a. Multi-base lines
- b. Fold-over pictures
- c. X-ray pictures
- d. Space and time representations of different sequences in a single space

3. Usually at this age the sun and sky become obviously important. The sky and the earth will meet somewhere between the ages of eight and ten.

C. The eight-year-olds

1. Adult help -- Help must be carefully given at this age as with all ages. If a child is helped to improve his powers of observation, he can learn to understand the "how" and "why" of things, and will discover many answers for himself. Through this increased understanding, he gains self-confidence and will continue producing creative work.
2. Formal perspective --- Formal teaching of perspective should not be attempted for several years. The child must be ready to accept this concept or it will have no value, even though he can see the illustration pointed out to him.
3. Informal perspective --- Informal teaching of perspective can be taught in the following manner: a child finds that objects which should appear to be in the distance of his pictures do not look right, he should be helped to discover what happens when he looks out the window. By holding up one hand in front of him, he can completely cover the house across the street, though he knows the house is actually much larger than he. This is the basic concept of perspective--- things far away appear to be small; things close by appear to be large.

4. Design principles --- Design principles should be taught to the eight-year-old. Questions and statements similar to the following may be helpful:

"Do things seem to fit on the paper?"

"What nice shapes the spaces between the objects make."

"Is the picture too heavy on one side?"

"Are the lines too busy?"

5. Figure drawing --- People will become an important part of the eight-year-old's art work. His representation of the human figure may retain a certain amount of symbolism found in the seven-year-old but gradually more realism, detail, and action begin to appear. No formal lesson in figure drawing should be taught at this age. The child must be allowed to develop at his own pace.
6. Group work ->- Group work on murals, constructions, puppets, and other projects may have begun in a simple way in earlier grades but it now becomes more important and has a strong influence upon the child as he enters the "gang age". The eight-year-old is interested in recording his own ideas with his peers, whose encouragement and cooperation he needs. Often group work means integration with other subject areas, but there must be an honest relationship between art and the topics illustrated. Care must be taken not to over-integrate for fear of giving a biased approach. An over emphasis of group work deprives the child of the many individual art experiences which he should have for a healthy, creative growth.
7. Emotional outlet --- It must always be remembered that the child can participate in many art experiences without attempting to represent things as they appear to the eye. Painting or modeling, as a personal expression of his feelings, is a vital part of his development. An art session is a time in which he can freely find an outlet for these emotions in a constructive manner, whether he chooses to do it in terms of realism, fantasy, or abstraction.
8. Use of paper --- Increased dexterity in the use of materials is evident and it may appear that he is ready to accept new, different and exciting media

to express his natural enthusiasm. Materials alone should not be depended upon to motivate the eight-year-olds. A child should become thoroughly familiar with one media before moving on to the next. He must have time to enjoy it, to satisfy his innate curiosity, to invent, and to explore with it. In his use of colored paper, for instance, he is ready to move toward basic three-dimensional forms by fringing, alternate cutting, folding, scoring, and curling in a more advance manner than had been possible as a seven-year-old. Exposing a child to many extraneous materials only confuses him and violates the creative process.

9. Art appreciation --- Art appreciation is mostly incidental. Reproductions or original paintings and sculpture of good quality can be enjoyed without undue emphasis upon factual data or subject matter but rather for the feeling and response in the viewer.

D. The-nine-year-old

1. The "gang" age --- The nine-year-old exhibits more maturity and wants to be independent although he is influenced by the "gang" and the need for belonging to some group or organization. The boys stick together, being increasingly boisterous, while the girls, displaying more feminine traits, seek each other's company.
2. Emotional outlet --- The importance of his not making pictures representative of nature for their own sake is to be stressed. He needs to continue relating his feelings, experiences, and his world to his drawings, providing an emotional outlet for him. He may become increasingly meticulous, wanting to do things well, and will be disappointed if his work does not match his expectations. Possibly he will require individual guidance to help him evaluate his problems and to understand how he can solve them. Because of the wide variation in growth in children of this age, it is easy for some of them, if not properly encouraged, to give up entirely, resorting to stilted cliches or stereo-types.
3. Drawing --- As the drawing of the nine-year-old advances, he shows more understanding of basic perspective

by placing distant objects farther up on the page and by making them smaller. He also knows how to overlap. The blue strip of sky, formerly at the top of the paper, may now widen, extending to the horizon. Less symbolism appears in the human figure, which has become better proportioned and displays more action, as a result of the child's increased visual awareness. These figure drawings, however, are not yet ready to be judged by adult standards.

4. Painting --- Varying methods of applying paint may lead to experimentations by using sponges, sticks, pieces of cardboard, brayers, stencils, brushes, spatter techniques, sprinkling, etc. Color is still used for its emotional appeal, but now correct color relationships are more in evidence.
5. Thinking abstractly --- The nine-year-old produces less crude work because his eye-hand coordination is better. He takes an increased pride in his efforts as minor skills develop, and a longer interest span makes it possible for him to work on extended projects. He thinks more abstractly. He enjoys creating three-dimensional forms in clay or a variety of modeling materials, or making constructions with various media such as wire, toothpicks, papier-mache, plaster of Paris combinations or cardboard. He also enjoys carving plaster and some of the inexpensive builder's materials available.
6. Group work --- Group work can be on a more mature level now. More committee planning and better follow through are evident showing the nine-year-old's ability to shoulder responsibility. Such activity may center around murals and constructions, possibly integrated with studies of Indian tribes and/or pioneer life. In order to encourage further exploration of familiar materials and stimulate the awakened interest in crafts, projects may be composed of paint, chalk, paper mosaics, construction paper (in two- and three-dimensions), cardboard, yarn, wire, papier mache, seeds and macaroni and combinations of these or any other materials. Again the importance of maintaining an honest relationship between art and the subject studied must be emphasized. The children gain far more in projects of this type if there is teacher pupil planning to meet their aesthetic needs and interests.

7. Balance in all art areas --- Planning of the art program must be carefully done to avoid a series of purposeless exposures to busy activities. There must be a reasonable balance in all art areas, as well as between group work and individual experiences. Responsible nine-year-olds can help the teacher in formulating a flexible plan within a guided, developmental, and meaningful framework. Past art knowledge can be used as a base upon which to build new experiences, forming a logical and continuous sequence. Such healthy participation precludes the tempting use of extraneous materials frequently flooding the school supply marker. Such exotic media encourage flashy art presentations of short duration, placing undue emphasis upon the end product and harming creative growth.

8. Art principles --- Art principles may continue to be taught incidentally, as with the eight-year-olds. Since the nine-year-olds usually accept constructive criticism well from their peers, occasional class evaluations may give them needed opportunities to develop their own awareness of good art relationships by using the question methods described earlier. For example, nine-year-olds might be asked the following questions: "Do things seem to fit together in the painting?", "Do you like the way she used rich colors?" "Does this picture have movement?"

9. Art appreciation --- Art appreciation is a gradual, growing process, interwoven throughout all aspects of the program. Its quality depends increasingly upon the aesthetic awareness of the classroom teacher. The teacher's interest in setting up attractive surroundings, with possibly a specific beauty area, creates an atmosphere which effects the children daily.

E. Desired growth of eight and nine-year-olds

1. The development of the eight and nine-year-olds in art can be measured in several ways. If he has shown adequate creative growth, his work will be inventive, nonimitative and different from that of his classmates. His art will show independence of thought and the ability to solve problems without

the use of stereo-types and copying. He will be able to relate his world to his pictures with a certain amount of self-identification, and there will be variety in his mode of expression.

2. He will show increased visual awareness in the use of better proportions, the ability to create the illusion of distance. He will have developed some sensitivities to variations of line and shapes, dark and light. There will be increased responsiveness to textures, as evidenced by the appearance of surface patterns in his work.
3. There should be a fair amount of visual-motor control to enable him to use his materials well and he should have developed enough maturity to know how to take care of them. The child should be able to vary brush strokes and ways of applying crayon and chalk. He should be able to handle simple methods of working with paper sculpture, such as cutting and folding without accidental tearing. His use of modeling materials may now exhibit enough finger dexterity for the shaping and finishing of objects to be pleasing to him. Ideally, his technical ability should be sufficient for his creative expression.
4. There will be greater use, understanding, and control of colors. The child should have the ability to mix paints, to gray and lighten them at will. He will be able to relate to nature properly and yet use it emotionally.
5. Since there are increased group activities at this age, it is necessary for the boys and girls to have developed enough maturity to happily and cooperatively participate in them. To learn respect for the work of others and be able to share materials and cleanup responsibilities are prime requisites.
6. Throughout the development of the art program, as it weaves into the total curriculum, the eight and nine-year-old child should have sensitivity to and appreciation for the efforts of others.
7. This responsiveness possibly might start with the art of his classmates as they discuss and constructively evaluate each other's work. It may broaden

as the children find enrichment through the enjoyment of the work of professional artists, leading finally, through a well-integrated program, to increased understanding and respect for the artwork of other cultures.

IV. The child between the mental ages of eleven and twelve (Dawning Realism -- gang age)

A. Definition and characteristics of Realism

1. Realism: whenever an attempt is made to represent reality as a visual concept. Reality to each of us is different -- just as each of us is different. Realism is not to be confused with naturalism; naturalism refers to what is real to an individual. A summer day is a summer day -- that is nature -- this is naturalism. How a person feels or reacts to the summer day is real to him -- this is realism.
2. Representation of the human figure is the most obvious influence of realism. Children of this mental age level do not seem to draw what they see, but rather what they want to know. Through the use of details, they try to make the girls look like girls and the boys look like boys. The girls may attempt to make their feminine drawings excessively pretty with extra curls, eyelashes, and fancy dresses. Their work will appear to be tight and stiff. It is possible to help them loosen their drawings by self-identification, by responding to the feeling of what the figure is doing rather than who she is. Because there is much integration in the middle grades in which human figures are frequently used in murals, it is important for the best educational methods to be used so that the task of drawing people does not fall to the one or two "talented class artists".

B. Characteristics of eleven and twelve-year-olds

1. Social situations

- a. The average eleven-year-old has a fear of being different from his peers and wants to be a member of a group. As the school year

passes, prepuberty growth may bring out emotional changes which will influence his general work; he is apt to become very responsive one moment and unresponsive the next. During this period, behavior problems begin to develop and there is likely to be rebellion against adult domination. The wise teacher is aware of these general characteristics and will give individuals the encouragement and praise in guiding them toward constructive activities.

The characteristics of the twelve-year-old are varied. Although there are many preadolescents with their attending problems, there are also the childlike, less mature students who are seeking security in their little gangs. The more developed twelve-year-olds reject the need for being part of a group, seeking a few close friends. Since they are becoming more self-conscious, they are paying more attention to grooming. They try to avoid adult domination, want to have their say and like to be treated as mature individuals who can accept responsibilities.

2. Physical and mental growth

- a. For the eleven-year-old physical and mental growth frequently develops at different rates. His emotional maturity, his ability and interest will influence his creative growth. The wide range of individual differences and levels of development is apparent in all areas of school work, but especially in the field of art where the child requires individual attention and understanding on the part of the teacher. Since girls mature earlier than boys, they seem to be more capable at this age, and may easily take over the class-art projects, and cleanup responsibilities. The teacher can avoid this oneness by wise group planning including all the children, not just the obviously competent. Such cooperation helps fulfill needs for being treated as adults, allowing each to make his own contribution to the class.

- b. There is very little difference between the art of the eleven-year-olds and that of the twelve-year-olds except in degree. The twelve-year-old is more advanced, but many of the same problems occur. The child's creative growth may be unstable, reflecting emotional and physical changes. A deep concern to represent nature realistically coupled with an awareness of how insufficiently developed his own skills are may result in discouragement. This child needs to be encouraged and helped to realize that skill is much less important than his feelings and emotions. He must be encouraged to translate visual facts in creative and imaginative ways. He must be given opportunities to draw how he feels about things, relating himself to them. Due to the increased sensitivity of the preadolescent, his art expression should be accepted without pressing him for explanations or meanings.

3. Integrating art with other subjects

- a. When integrating art with other subject areas, too much representation and illustration will defeat the value of integration, making art the tool of other subjects rather than the wonderful, creative experience it can be. The plan of the art program should be very flexible. The inconsistent eleven-year-old must not be allowed to lose confidence in his own ability, which could easily happen at this time. He needs to be challenged without having his creative growth stifled by undue emphasis upon the end-result, upon realistic or "pretty" pictures. He needs guidance in developing a conscious feeling of special relations, order, and design. He must have some time to work independently, to search and discover. He should have opportunities to experiment with colors, paints, and other media, perhaps some transparent, and to react to other changes in light and shadow. In crafts he should have the tactile experiences that might be provided by simple weaving with unusual materials such as grasses, feathers, straw, or hemp. There

should be occasions for constructions, carving, and modeling. There should always be plenty of paper available, both white and colored for cutting, shaping, drawing, and painting. In class, the child will have opportunities to discuss and enjoy these projects by his peers, enjoyment which can lead naturally to the satisfying study of contemporary artists and their work. Through the acquired knowledge of other cultures in social studies, appreciation of the arts of the past receives further encouragement. The art program for the middle grades should be broad, well-balanced and planned to foster healthy attitudes needed to nourish creative growth.

- b. The same care is needed in guiding the art program for the twelve-year-olds as for the eleven-year-olds. There would be a delicate balance between integration with other subjects and individual creative work. Formal techniques and principles of art should not be taught, but the child can be helped to increase his powers to observation, to seek excellence and raise his own aesthetic standards. Opportunities should be provided for continued creative self-expression in both two and three dimensions as well as for the enjoyment of good art. One who produces cannot help responding warmly to the work of others, because appreciation cannot be divorced from the act of creating.

C. Desired growth

1. An eleven or twelve-year-old should have reached a degree of development where he can make an independent statement through the use of materials. He should be able to translate facts to art forms imaginatively and creatively. It should not be necessary for him to resort to copying or the use of cliches, nor should he be unduly influenced by the work of his classmates. There should be no question in distinguishing his art work from that of his peers.
2. The child at this age can have a good sense of order and arrangement in expressing his ideas through the original use of well-chosen colors, imaginative shapes,

varied lines, and interesting textures. His perceptual awareness should have matured to the point where he can use elementary perspective (nearby objects appear large, those far away appear small); include details necessary to characterize human figures and objects; record apparent differences between them; depict proper relationships; and show action. He should be able to indicate some understanding of light and shadow. There should be sufficient development in a manner satisfactory to his own needs, based upon his ability. It must be remembered that his work is not ready to be judged by adult standards at this age.

3. Since there are not definite archetypes to determine the ideal degree of art performance, some teachers may unwisely tend to evaluate growth only by the dexterity with which materials are handled. It is as dangerous to stress the acquisition of motor skills for "near perfect" drawing, painting, or modeling as it is to swing in the opposite direction, encouraging haphazard accident scribbling or thoughtless piling together of materials as a tricky representation of "modern" art.

4. The artwork of eleven and twelve-year-olds will show much variance, due to the wide span-- physically, mentally, socially, and emotionally-- in the maturity rates. This variance is further influenced by their cultural environment. Although it is difficult to generalize about a child's desired creative growth, much can be determined by his attitudes, his desire to take responsibility, search, discover; inquire about, accept and share his ideas with his teacher and classmates, both in studio creativity and art appreciation.

V. The preadolescent between the mental ages of thirteen and fourteen (the pseudo-naturalistic stage: the stage of reasoning)

A. Characteristics of this age group

1. The students of this age are moving or well into preadolescence development. This is a time when

most girls start to develop mature sexual characteristics but most boys do not. This is a time for seeking greater independence from adults and a time for following the demands of the crowd. The term "child" can no longer be applied in most cases; we will use the term "student" here. This is a time when the student tries to be as much like his peers as possible in his clothes, hair, attitudes, ... But this is also a time of greater individual differences --- most noticeable in physical differences, but also in the mental, emotional, and social areas as well. This is an age when emotion and strong feelings begin to be expressed, when the adult word is no longer accepted as gospel, when the student finds that he is not a child, but is also very sure he is not an adult. The role of art in this stage of development should be both strong and clear: to give support to his individuality, to provide a socially accepted release for his emotions and tensions, and to ease the transition from the expression of a child to the type of expression expected of an adult.

2. After a child has gone through the gang age, he enters a stage in which he has developed intellectually to the point where he can tackle almost any problem; yet in his reactions he is still a child. The difference between children and adults can best be seen in the diversity of their imaginative activity. This can be observed in the different types of playing. The child may play cowboys or hide-and-seek with much energy; and in the same way he will make a pencil into a bucking horse. Such unawareness is characteristic of children. Their imagination turns the pencil into a bucking horse. All children use their imagination in such an uninhibited way; if an adult were to do the same he would be considered strange. To an adult a pencil is a pencil and the pencil is for writing. The child's imaginative activity is unconscious; the adult's imaginative activity in its effect is controlled. This change in the imaginative activity from the unconscious to critical awareness, signaled by physical changes in the body, is one of the most important characteristics of the crisis of adolescence.
3. During this stage, for the first time, the attention has to be shifted from the importance of the working process to an increased emphasis on the final product. Because of this, the final art product becomes more and more significant with increasing age.

4. At this age an important factor usually becomes quite obvious in the sensory reactions of the students toward their artistic experiences. It can be seen that some students prefer visual stimuli; while others may be more concerned with the interpretation of subjective experiences.
 - a. Visual experiences are defined as those that refer to our optical senses. They are concerned with the differences of color, light, and shadows, introduced through atmospheric conditions as well as with the perspective interpretation of space.
 - b. Subjective interpretations are those that emphasize the emotional relationship to the external world in reference to the body self.
 - c. Students who have a preference for visual experiences feel as spectators, looking at their work from outside. Subjectively minded people feel involved in their work.
 - d. Most students react in both ways, with a preference for one or the other kind of experiences.

B. Figure drawing

1. Visually minded students will become more aware of the changing optical effects experienced in different light and space. They will draw clothes more natural as soon as they observe the change that takes place in apparel when we sit down. The clothes fold or wrinkle at the bent parts, lights and shadows are determined by the changes of the sitting body. Before reaching this stage, clothes are used only to show sexual characteristics.
2. One of the first signs of the discovery of changing effects is the drawing of joints. Usually, at this time, students desire to include joints in their drawings of the human figure.
3. The visually minded student concentrates more on the whole and its changing effect.
4. The non-visually minded student concentrates more on the details in which he is emotionally interested.

5. The visually minded student will see the body as a whole -- the non-visually minded student is concerned with details which are emotionally significant to him.

C. Space

1. The visually minded student will discover perspective on his own. He may not realize what he has discovered but he must never be taught perspective until he asks for it. This can be simply taught by observing nature with the teacher asking questions to let the child discover the process himself.
2. The non-visually minded student may not be concerned with special relations to portray his feelings. To him his pictures have emotional significance and he concentrates more on the self. The visually minded student is concerned about the environment because he thinks of himself as a spectator viewing the event portrayed in his picture.

D. Color

1. The visually minded student will see colors and their changing effects in different situations and conditions.
2. The non-visually minded student will use colors to convey his emotional reactions to situations.
3. Contrary to many outmoded psychological reports, emotional reactions to colors depend on the individual. These emotional reactions depend on the past experiences of the individual. To some people the color red denotes horror, others it denotes happiness -- due to the past experiences of the individual.

E. Subject matter

1. Most students of this age will be able to find subject matter from within their own environment and experience. The teacher should try to face problems most of the students are concerned with at this age -- correct proportions on the human figure; perspective, color discrimination.
2. Posters, table decorations, and room decorations can be done by any class. The art time should be spent in activities more useful to the individual students.

F. Approaches to teaching

1. The student is now becoming more critical of his own work. He sees the pressure to conform to the adult standards of behavior and the standards of the "group". The teacher should develop an attitude of encouragement when the student attempts individuality in expression, exploration in untried directions, and deeper concentration in one area of interest.
2. A meaningful art program is one that is void of halfhearted attempts, stereotype work, and copying. Meaningful problems and topics, ones that encourage a depth of expression, ones that stimulate a student's thinking are much more important than making "pretty" end products. Creativity now becomes one of the most vital areas of the art program.
3. Art is not merely a subject matter area but is the expression of the total being.

MURALS

A mural, in schoolwork, is a design or a pictorial representation executed on various kinds of background materials using a variety of media. It can be either two- or three-dimensional. It is a group project with every child participating.

With proper motivation and guidance, creating a mural is very exciting and challenging group work. The teacher acts as a guide who helps the students organize committees, choose materials suited for the project, and assist in the contents and organization of the mural.

The mural can be correlated with social studies, holidays, current events, science, trips, and everyday experiences.

The size of the mural may vary from small to the area of an entire wall, depending on the age level and ability of the class.

Murals can be executed using:

*Tempera and watercolor paint

*Crayons

*Mixed media (crayon, paint)

*Three-dimensional paper sculpture

*Collage (Paper, cloth, etc.)

*Mosaic (sticks, stones, beads, paper, vinyl, ceramic tiles, etc.)

*Applique

*Stitchery

PUPPETS

Puppetry is an area which is thoroughly enjoyed by all children. It has appeal and excitement which few other projects can equal, and is one in which the whole class can participate. It helps to develop group working skills and leadership.

The lower grades can make simple puppets of cardboard figures with sticks attached. A piece of fabric draped over a finger or fist and tied to form a head and dress, with features and other details crayoned or painted on, serves as an effective handpuppet.

Children in the upper elementary grades can make more elaborate hand puppets and marionettes. These puppets may be made in various ways, using a wide variety of materials.

In the lower grades, the puppet plays can be spontaneous; either fanciful, mysterious, comic, or growing out of social studies or other units in the school curriculum. These plays are of very short duration.

The stage can be made from a large cardboard box, chairs, tables, the teacher's desk, or more elaborate devices, depending on the grade level.

The upper grades should plan their own plays before starting to make the puppets. The class may write several short plays or one long one, depending on the wishes of the children. The teacher should not underestimate their creative ability by having them work on a play which some adult has written.

Since in the upper grades there will be more involvement in the making of puppets, scenery, stages, and properties, the class should be divided into committees. The students can arrange this largely on their own, with the teacher acting as a guide. This kind of activity offers all of the children in the class opportunities to work together, share ideas, and show respect for one another's work.

Since many articles and fine books have been published on the subject, the teacher can find materials and choose the type of puppets to make which will suit the grade level of the students.

It must be remembered that the basic objective in creating puppets is the opportunity offered to design through another medium.

LETTERING AND POSTER MAKING

Lettering and posters are communications devices, and since communication is one of the prime functions of art, they may rightfully be accorded a place in the elementary school art program. In including lessons in lettering and poster making in instruction, however, avoid making these experiences dull and tedious ones, encumbered by too many rules and regulations. Poster making and lettering should be enjoyable experiences which the child will undertake with confidence whenever the need arises for brief, precise and effective visual communications.

Below are a few "Do's" and "Don'ts" of lettering and poster making for elementary schools.

Lettering

DO

Use lettering as the need arises for signs, posters, and so forth.

Think of each letter as a design which may be widely varied, but which must still be easily recognized.

Teach the difference between capitals and lowercase letters and urge consistency in their use.

Talk about words and phrases as "design units" within the composition of a sign or poster, each unit being a beautiful part of the whole.

DON'T

Make pages of practice alphabets which have no apparent use.

Try to teach children to make specific style lettering or to imitate typeface such as Old English, Bodoni, Roman Gothic, and so forth.

Dictate proper proportions of capitals to lowercase letters and become involved with rulers and tedious measurements.

Crowd so much lettering on a sign or poster that the overall design will be poor.

POSTERS

DO

Use posters to publicize things of vital interest to the children, such as school plays, elections, exhibits, and projects growing out of the curriculum.

Think of a poster lesson as an opportunity for teaching about design (including line, form, color, texture, and special relationships).

Make posters on various surfaces including construction paper, wrapping paper, cardboard, and so forth.

Use paint, cut paper, felt tip pens, and other media to make posters.

Plan layout roughly in advance of working on the finished product.

Encourage neatness of product.

DON'T

Use children's time and effort to make posters for adult groups in the community whose special interests may be of no concern to the children.

Think only about cramming every scrap of information onto the poster. A poster that contains too much lettering and poorly considered design may never be read.

Think that every poster must be made on an expensive poster board.

Limit your medium to poster paint.

Waste so much time on preliminary planning that the fun and spontaneity of the project wanes before the final draft.

Become so involved with neatness that stiffness is the only result.

RECOMMENDED ART ACTIVITIES

... SUGGESTIONS REGARDING KINDS OF ACTIVITIES TO USE WITH CHILDREN
AT VARIOUS GRADE LEVELS

ART MEDIA

Kindergarten - Grade 2

Crayons

1. drawing with the point
2. broad stroke
3. crayon rubbings
4. stenciling
5. crayoned textured surfaces
6. crayon resist
7. crayon textiles
8. crayon over tempera
9. crayon under finger paint
10. rubbed crayon
11. suggested projects: posters, murals, designs, illustrative booklets

Chalks (pastels and soft-colored chalks)

1. drawing with the point
2. broad stroke
3. stencils
4. chalk on wet paper
5. chalk with buttermilk, liquid starch, or liquid soap
6. chalk on textured surfaces
7. various colored chalks on colored paper
8. suggested projects: murals, designs, designs to music

Drawing media (miscellaneous)

1. drawing with sticks and twigs using ink or paint
2. lead pencils
3. ballpoint pens
4. brushes
5. suggested projects: murals, designs, sketches

Paints (opaque and transparent water-color)

1. painting with wet brush
2. blotted painting
3. painting on wet paper
4. spatter painting
5. sponge painting
6. string dipped in paint
7. stenciling
8. finger painting

RECOMMENDED ART ACTIVITIES -

ART MEDIA

Kindergarten - Grade 2

Paints (con't.)

9. painting on textured surfaces
10. suggested projects: murals, movies, response to music

Clays and other modeling media

1. modeling (three-dimensional)
2. intised and embossed slabs
3. simple pottery
4. suggested projects: pinched pots, masks, figurines, tea tiles, plaques, trivets

Paper (papier-mache, paper sculpture)

1. two and three-dimensional cut paper
2. elementary paper sculpture
3. cut and torn paper mosaics
4. paper strip weaving
5. papier-mache strips over rolled newspaper and stuffed-paper bags
6. suggested projects: paper dolls, masks, kites, murals, booklets, dioramas

Structuring media

1. box and paper towel core structures
2. miscellaneous materials- scrap wool, spools, wire mesh
3. dioramas
4. suggested projects: stabiles and free form sculpture

Textiles

1. elementary loom weaving
2. spool weaving
3. elementary stitchery
4. suggested projects: mats, hangings, belts, dolls, rugs

Printing techniques

1. finger printing
2. gadget printing
3. vegetable printing
4. monoprinting
5. roll-on printing
6. suggested projects: wrapping paper, booklet, booklet covers, designs

RECOMMENDED ART ACTIVITIES

ART MEDIA

Miscellaneous

Kindergarten - Grade 2

1. mosaics of seeds, pebbles,
and assorted materials
2. collages
3. puppets with sticks and paper
bags
4. salt and corn starch beads
5. basketry

RECOMMENDED ART ACTIVITIES

ART MEDIA

Grades 3-5

Crayons

1. drawing
2. broad strokes
3. crayon rubbings
4. stenciling
5. crayoned textiles
6. crayon resist
7. crayon over tempera
8. crayon over fingerpaint
9. rubbed crayon
10. crayon glaze
11. crayon engraving
12. chipped and ironed crayons
13. crayon on textured surface
14. suggested projects: posters, illustrations, murals, designs, booklet covers, curtains

Chalks (pastels and soft-colored chalks)

1. drawing with the point
2. broad strokes
3. stencils
4. chalk on wet paper
5. chalk with buttermilk, liquid soap
6. chalk on textured surfaces
7. various colored chalks on colored paper
8. suggested projects: murals, designs, pictures

Drawing media (miscellaneous)

1. drawing with sticks and twigs using paint or ink
2. lead pencils
3. colored pencils
4. ball point pens
5. shoe polish daubers
6. brushes
7. feathers
8. felt pens
9. charcoal or charcoal pencils
10. suggested projects: murals, designs, sketches, illustrations

Paints (opaque and transparent water-color.)

1. painting with wet brush
2. painting with dry brush

RECOMMENDED ART ACTIVITIES

ART MEDIA

Grades 3-5

Paints (con't.)

3. painting on wet paper
4. splatter painting
5. sponge painting
6. string painting
7. stenciling
8. finger painting
9. painting on textured surfaces
10. blotted painting, both mono-print and folded paper
11. minglings
12. straw blowing
13. powdered paint on wet surfaces
14. painting with mixed media
15. suggested projects: murals, response to music, portraits, illustrations, posters, landscapes, still-lifes

Inks and dyes

1. elementary tie dyeing
2. ink over tempera
3. drawing with ink
4. suggested projects: scarves, wall hangings, articles of clothing

Clays and other modeling media

1. modeling (three-dimensional)
2. incised and embossed slabs
3. simple pottery, pinch and slab type
4. suggested projects: masks, figurines, plaques, vases, candle holders, beads

Paper (papier-mache, paper sculpture)

1. two and three-dimensional cut paper
2. paper sculpture
3. cut and torn paper mosaics
4. papier-mache pulp sculpture
5. papier-mache strips over rolled newspapers or armatures
6. single form laminated papier-

RECOMMENDED ART ACTIVITIES

ART MEDIA

Grades 3-5

Carving media

1. soap carving
2. plaster
3. building supply company products, such as foam glass, fire brick, feather rock
4. suggested projects: sculpture, plaques

Structuring media

1. box and towel structures
2. miscellaneous materials: scrap wood, spools, wire mesh
3. string sculpture
4. wire sculpture and combinations
5. toothpick sculpture
6. reed sculpture
7. suggested projects: stabiles, mobiles

Textiles

1. simple loom weaving
2. straw weaving
3. spool weaving
4. rake type loom weaving
5. reed weaving
6. stitchery
7. applique
8. stenciling
9. block printing
10. braiding
11. suggested projects: scarves, small rugs, pot holders, mats, purses, wall hangings, curtains, belts, afghans

Printing techniques

1. gadget and nature form printing
2. vegetable printing
3. monoprinting
4. roll-on printing
5. built-up block printing
6. wax printing
7. suggested projects: wrapping paper, covers for boxes, booklets, designs, cards, fabrics

RECOMMENDED ART ACTIVITIES

ART MEDIA

Miscellaneous

Grades 3-5

1. mosaics or seed, pebbles, and assorted materials
2. collages
3. puppets - hand, finger, sock, box
4. simple jewelry: cage stones, tooled foil pins, plaster of paris pins, and earrings, woods
5. basketry

RECOMMENDED ART ACTIVITIES

ART MEDIA

Grades 6-8

Crayons

1. drawing
2. broad strokes
3. crayon rubbings
4. stenciling
5. crayon textiles
6. crayon resist
7. crayon over tempera
8. crayon over finger paint
9. rubbed crayon
10. crayon glaze
11. crayon engraving
12. chipped and ironed crayons
13. melted crayon
14. crayon on textured surfaces
15. suggested projects: murals, designs, sketching, booklets, illustrations, curtains, stained glass windows

Chalks (pastels and soft colored chalks)

1. drawing with the point
2. broad stroke
3. stencils
4. chalk on wet paper
5. chalk with buttermilk, liquid soap
6. chalk on textured surfaces
7. various colored chalks on colored paper
8. suggested projects: murals, designs, pictures

Drawing media

1. drawing with sticks and twigs
2. lead pencils
3. colored pencils
4. shoe polish daubers
5. ball point pens
6. brushes
7. feathers
8. felt pens
9. charcoal or charcoal pencils
10. grease pencils
11. suggested projects: murals, designs, sketches, illustrations

RECOMMENDED ART ACTIVITIES

ART MEDIA

Grades 6-8

Paints (opaque and transparent watercolor)

1. painting with wet brush
2. painting with dry brush
3. painting with wet paper
4. splatter painting
5. sponge painting
6. string painting
7. stenciling
8. finger painting
9. painting on textured surfaces
10. blotted painting, both mono-print and folded paper
11. minglings
12. straw blowing
13. powdered paint on wet surfaces
14. painting with mixed media
15. suggested projects: murals, response to music, portraits, illustrations, posters, landscapes, still-lives

Inks and dyes

1. elementary tie dyeing
2. ink over tempera
3. drawing with ink
4. brush painting with dye
5. suggested projects: scarves, wall hangings, articles of clothing

Clays and other modeling media

1. modeling (three-dimensional)
2. incised and embossed slabs
3. simple pottery, pinch and slab type
4. suggested projects: masks, figurines, plaques, vases, candle holders, beads

Paper (papier-maché, paper sculpture)

1. two and three-dimensional cut paper
2. paper sculpture
3. cut and torn paper mosaics
4. papier-maché pulp sculpture
5. papier-maché strips over rolled newspaper or armatures

RECOMMENDED ART ACTIVITIES

ART MEDIA

Grades 6-8

Paper (con't.)

6. single form laminated papier-mache
7. crepe and tissue papier-mache
8. suggested projects: masks, kites, ornaments, books, murals

Carving media

1. soap carving
2. wood
3. plaster
4. salt block
5. mixture
6. suggested projects: sculpture, plaques, totem poles

Structuring media

1. box and towel core structures
2. miscellaneous materials: scrap wood, spools, wire mesh,
3. string sculpture
4. wire sculpture and combinations
5. toothpick sculpture
6. reed sculptures
7. suggested projects: stabiles, mobiles

Textiles

1. harness loom weaving
2. simple loom weaving
3. spool weaving
4. rake type loom weaving
5. reed weaving
6. stitchery
7. applique
8. stenciling
9. block printing
10. rug hooking
11. braiding
12. batik
13. suggested projects: scarves, rugs, pot holders, mats, purses, wall hangings, curtains, belts, afghans, tablecloths, skirts

Printing techniques

1. gadget and nature printing
2. vegetable printing

RECOMMENDED ART ACTIVITIES

ART MEDIA

Printing techniques (con't.)

Grades 6-8

3. monoprinting
4. roll-on printing
5. built-up block printing
6. wax printing
7. silk screen printing
8. soap printing
9. linoleum block printing
10. wood block printing
11. plaster block engraving
12. clay block printing
13. glass lithography
14. suggested projects: box covers, cards, booklets, fabrics, designs, wall hangings

Miscellaneous

1. mosaics of seed, pebbles, and assorted materials
2. collages
3. hand and finger puppets of all varieties
4. marionettes
5. simple jewelry: caged stones, tooled foil pins, papier-mache, beads and bracelets, clay beads, seed beads, plaster of paris pins and earrings, wood
6. basketry

RECIPES

GESSO

- 10 teaspoons whiting (precipitated chalk)
water to make a thick cream
- 6 teaspoons glue
- 1 teaspoon varnish
- 4 teaspoons boiled linseed oil

The whiting can be purchased at most hardware stores. Boil for 10 minutes in a double boiler. Color by adding powder paint.

SELF-HARDENING CLAY

This clay hardens in drying and requires no firing. It can be brought commercially in craft stores or supply houses. It is practical to use when you have no kiln, or when you do not wish to fire young children's work. To make your own, add:

- 1 part dextrin to
- 19 parts of clay flour

Dextrin added to clay will harden the pieces so they will be substantial enough to last without firing. Be sure to use the dextrin made from yellow corn. (White dextrin is not satisfactory). Dextrin may also be worked into wet clay. Use one teaspoonful of dextrin to one pound of wet clay. The pieces may be printed when dry.

SILK SCREEN PAINT

1. Plain finger paint (creamy consistency)
2. Commercial silk screen paint
3. Tempera silk screen paint:
 - tempera paint
 - soap flakes
 - water

add a small quantity of soap flakes to the tempera to give it a viscosity and to deter drying; add water to it only if necessary. If paint is too thick, it will clog the screen; if it is too thin, it will run

4. Liquid starch silk screen paint:
 - liquid starch
 - powder paint

add liquid starch to powder paint until it is the consistency of light paste

BLOCK PRINTING INKS

Water soluble

1. commercial type
2. dry tempera and liquid starch

Oil base

1. commercial type
2. 2 parts powder paint
1 part linseed oil
1 part varnish

Mix to the consistency of a smooth paste. This spreads on evenly, but will not dry quickly. Good for a paper with a rough-textured surface.

Varnish base

- 3 parts powder paint
- 1 part varnish

Mix with a palette knife on glass. Use a brayer or printing roller, rolling it back and forth until the mixture is tacky before applying it to the block. This will dry quicker than the oil-base ink and is suitable to use on non-absorbent, smooth-finish paper. This mixture can be thinned with denatured alcohol.

SALT AND CORNSTARCH MIX

- $\frac{1}{2}$ cup salt)
 $\frac{1}{2}$ cup cornstarch) stir thoroughly
 $\frac{1}{2}$ cup water)

Mix above ingredients and cook over low heat stirring constantly. When mixture turns to one lump, it is ready to work. Must be shaped quickly. If left over night, cover with damp cloth to keep mixture soft. It is difficult to create anything over 6" high. A hole in the bottom of the figure will speed drying. Figures should dry about 2 weeks before painting. Can be painted with water color or tempera and coated with shellac or varnish.

Suggestions:

- puppet heads
- small sculpture pieces
- farm animals
- Christmas ornaments

Asbestos Modeling Materials: To one cup of powdered asbestos (from hardware store) add one teaspoon powdered wheat paste. Moisten with enough water to make it a consistency for modeling.

Fabric Paint: A fabric paint that is "fast" may be made by mixing the white of an egg or powdered albumen (one to three parts) with tempera water color. To this mixture, add $\frac{1}{2}$ teaspoon of vinegar. After the design has been painted on the fabric, place the fabric face down between two papers. Steam with a hot iron and damp cloth. This sets the colors and makes them fast.

Fixatives: Mix one part shellac with two parts denatured alcohol. Spray on chalk, charcoal, or pastel pictures with an atomizer or insect spray gun.

Use skim milk. (All cream must be taken off.) Lay the chalk or charcoal painting flat on a table front down. Paint the back of the painting with skimmed milk. Let the painting stay flat until dry. This will prevent smudging the smearing.

Use whey from sour milk as a fixative on chalk pictures. Do not hold the spray too close to the picture.

Flameproofing Solution: Mix nine ounces borax and four ounces boric acid in one gallon warm water. Apply to fabrics, paper streamers, and all other inflammable items by dipping, brushing, or spraying. Washing removes the solution. Repeat the process if you wish the material to remain flame proof.

Textile Paint Substitute: Mix 12 drops vinegar, 6 drops lemon juice, and 3 ounces of turpentine with tempera or oil paints. After the material has been painted and dried, the colors may be set by using a pressing cloth saturated with diluted white vinegar and pressing with a hot iron.

FINGER PAINT

1. semi-moist tempera paint
2. paint liquid starch on paper and add liquid or dry paint
3. laundry starch finger paint:
 - 2 quarts boiling water
 - 1 cup soap flakes
 - 1 cup laundry starch
 - $\frac{1}{2}$ cup talcum powder

Dilute starch in a cupful of cold water. Add remaining water slowly, stirring starch constantly to avoid lumping. Stir in soap flakes and talcum powder. This will make about 5 pints. Soap flakes added to the paint, acts as a binder. This recipe can be used to fingerpaint on glass or over a heavy coat of crayons.

4. cornstarch finger paint;
 - $\frac{1}{2}$ cup cornstarch
 - 1 quart boiling water

Dissolve the starch in a small amount of cold water and gradually add the hot water. Cook until clear. To keep from drying add 2 tablespoons of glycerine; to keep from souring add oil of cloves or oil of wintergreen.

For color use poster paint, India ink, or powder paint mixed with water to a consistency of a smooth paste.

PAPIER-MACHE

1. Flour and salt mixture

In a large pan mix-

- 1 cup flour
- 2 tablespoons salt
- 1 cup cold water

Beat out all lumps,

add 6 cups hot water,
cook, stirring constantly, to a boil.

Mixture will be thick-easy to carry from home to classroom;
can be thinned to desired consistency.

Will keep about 3 days in a cool place.

2. Liquid starch

Add $1\frac{1}{2}$ gallons of water to $\frac{1}{2}$ gallon starch.
Will keep a long time.

3. Elmers glue

Mix $\frac{1}{2}$ glue and $\frac{1}{2}$ water

Should be used as soon as possible, mixture will separate

Any of the above methods can be used with strips of newspaper over a frame of chicken wire or plastic bottles. The flour and starch mixtures can be used to soak small pieces of paper over night and modeled like clay.

SALT DOUGH

$\frac{1}{2}$ cup flour

$\frac{1}{2}$ cup salt

Mix thoroughly, adding a few drops of water at a time until a ball of dough forms. Powdered tempera may be added to tint mixture.

Suggestions: Lapel pins
 Christmas ornaments
 relief maps

WOOD STAINS

1. Mix powdered tempera paint with linseed oil or turpentine until flowing consistency is reached.
2. Rub crayons with the grain of the wood. Rub the wood vigorously with a cloth saturated in linseed oil.
3. Waterproof lacquer - mix powder paint with a gloss oil.
4. Enamel - add clear shellac, lacquer, or varnish to the powder paint until a desired brushing consistency is reached.

MODELING MATERIALS

1. Plaster of Paris

Pour the approximate amount of water needed for a mold into a container (one quart of water for 4 cups of plaster of paris is a good proportion to use). Add plaster until a small mound stays on the surface of the water, and then stir until it thickens. Pour into a mold, form, box, or any container which will hold plaster firm until it sets. The form or box should be a little larger than the size of the finished carving. After

plaster has set, it can be removed from the form. Even though still wet, it is ready for carving. It will stay damp for several days or can be resoaked in water and then carved or shaped with tools.

2. Zonalite Mixture I

4 parts course Zonalite (a building material)
2 parts sand
2 parts cement
water

Mix ingredients and pour into a wax carton. Allow to dry for three days. Peel the carton away and carve with a coping saw, nail file or tongue depressor. Paint with varnish or shellac.

3. Zonalite Mixture II

1 part dry Zonalite
3 parts vermiculite
water

Add water gradually until the mixture looks like a cooked cereal. Pour into a box or form and allow it to dry for 1 week, then carve.

4. Dough

Modeling material
4 cups flour
2 cups water
1½ cups salt
coloring as desired

Mix flour with table salt, add coloring to water and mix all ingredients together. If too spongy, add more salt. Knead thoroughly. Mixture keeps in good condition for a week and may be reused daily. Store in covered crock.

5. Paraffin

Melt paraffin in a pan placed in very hot water, never directly over the fire. Pour it into another container. When it has solidified but is still soft, model it as you would any other plastic material. The warmth of the hands will keep it soft, especially if you dip your hands in warm water.

If color is wanted, shave a little wax crayon into the paraffin while it is melting. A marbled effect is brought about by

adding the wax after the paraffin is melted. Crushed colored chalk may also be added.

When the object is molded, dip it in cold water to harden. Polish the paraffin by rubbing it with a cotton cloth.

SAWDUST MODELING

1. Sawdust
Wall paper paste
Water

Mix equal parts. If the mixture is sticky, add more sawdust.

2. 2 cups sawdust
1 cup plaster of paris
 $\frac{1}{2}$ cup wheat paste or wall paper paste
2 cups water

Mix ingredients. Add water gradually until a modeling consistency is reached. Excellent for puppet heads, fruits, vegetables, masks, figures, animals.

3. Textured Sawdust

Sawdust
Powdered paint
water

Mix powder paint with water to a thin cream consistency. Spread on a newspaper to dry. Use it to sprinkle on a glued surface for a textured effect.

INEXPENSIVE SUBSTITUTE FOR CLAY

1. Crepe Clay

1 fold of crepe paper - any color
1 tablespoon of salt mixed with
1 cup flour
water

Cut the crepe paper into tiny pieces (confetti size). Place in a large bowl; add only enough water to cover the paper. Allow it to soak for 15 minutes and pour off the excess water; add enough of the flour-salt mixture to make a stiff dough. Knead well until it is blended with the crepe paper.

2. Flour Clay

- 1 cup flour
- 1 cup salt
- 1 rounded teaspoon powdered alum

Add water slowly and knead until a claylike consistency is reached.

3. Cornstarch Clay

- $\frac{1}{2}$ cup cornstarch
- 1 cup salt
- 1 cup boiling water

Boil to a soft ball stage and knead on wax paper until malleable. Wrap in a wet cloth to keep a few days. These substitutes may be handled exactly like clay. They may be pressed on maps to make a relief, and, when dry, either substitute can be painted. They retain shape without crumbling. For a colored mixture, add powder paint to the water when mixing it.

4. Sawdust-wheat paste clay mixture

- 8 parts sawdust
- 1 part wheat paste
- 2 parts dry clay
- 5 parts water.

Mix together sawdust, wheat paste, and dry clay. Add water. This mixture is especially good for modeling clay puppet heads. When thoroughly dried, it is almost as hard as wood.

5. Quickdrying pulp papier-mache'

- 4 cups papier-mache' pulp
- 1 cup plaster of Paris
- $\frac{1}{2}$ teaspoon commercial glue

Knead to the consistency of heavy dough. It will dry in from three to six hours.

6. Modeling pulp

Add one cup of plaster of Paris to one gallon of any papier-mache' pulp. Mix thoroughly. Suitable for modeling fruit, vegetables, toys, animals, etc.

7. Crepe papier-mache'

To make crepe papier-maché, prepare a packed cupful of crepe paper cut in small pieces. Add enough water to wet the paper thoroughly and soak overnight. Then mix and rub the wet paper into a very fine pulp. Next add 4 to 5 tablespoonfuls of flour and 2 tablespoonfuls of salt. Work this mixture thoroughly until it is the consistency of clay. Library paste can be added if desired. Mix a batch for each color to be used.

8. Papier-maché pulp

Tear newspapers into small pieces. Soak in water overnight. Next day boil for two hours. Drain the excess water, leaving the pulp. Add one cupful of school paste or wheat flour to 5 cupfuls of well-mixed pulp. The mass is then ready to be used as a modeling medium.

9. Single form laminated papier-maché

Paste six layers of newspaper together. Add a seventh layer of paper toweling. Cut the pasted layers into an interesting form and gently shape the edges. Pinch them securely. Let dry thoroughly. Decorate with paint.

10. Clay Papier-maché

Soak newspaper in slip (liquid clay) instead of the usual wheat paste and water. This mixture is excellent for making a firm, yet brittle object. The finished piece will crack and break when dropped or hit with a hard object. This is ideal for making a pinata at Christmas time.

PAPER SCULPTURE

Manipulation of paper for sculpture effects, paper sculpture, is a method of handling dry paper to develop a three-dimensional object. Paste, staples, pins, clips, paper fasteners, or tape can be used to attach one dry piece of paper to another.

Some basic approaches to manipulation and cutting the paper should be taught. Experimentation by the students should be encouraged.

Paper sculpture is created by punching holes, cutting, tearing, bending, twisting, fluting, scoring, perforating, pleating, curling, fringing, pinking, rolling, weaving and braiding paper and fastening it into three-dimensional forms.

Children should be taught how to cut shapes from folded paper, such as circles, squares and cones, cylinders and triangles; how to cut surface texture on the forms they have created.

1. Box Sculpture

Free-standing, three-dimensional objects may be created in all the elementary grades. Materials needed for this activity are a collection of an assortment of boxes which vary in size and shape, mailing tubes of different lengths and diameters, spools, paper rolled into cylindrical shapes, colorful magazine pages, metallic, cellophane, rough and smooth papers, paper bags and sand paper. The paper can be rolled, pleated, folded and fringed. Paste, glue, paper fasteners, staples, string and wire are also needed.

Younger children can paste the containers together and create shapes at random and paint them. Older children should make plans before starting, perhaps arranging the material together several different ways before the final decision.

Details should be encouraged and added, such as cut paper and mosaic designs. Buttons, beads, shells, and small stones also add interest as well as texture to the box sculpture.

2. Free-standing forms

Colored or construction paper rolled, folded into cylinders, cones, squares, rectangles, or triangles is fastened together to create interesting and unusual forms.

The main problem in this project is to develop free standing forms. The base or appenages must support the completed object. Through experimentation, children will discover which shapes will be the best for the base and how to fasten the parts together. Supplement the trimmings with a variety of miscellaneous materials, such as buttons, pins, jewelery and metallic paper.

3. Picture Making with Paper

The paper for this project should be varied in color, texture, and weight and should be available in several shapes and sizes. Odds and ends of paper, from newsprint to corrugated cardboard, including metallic and shiny, matte as well as transparent, should be provided so that children can select whatever type they may require. Allow the children to select their own choice of paper which is stimulating and exciting; always encourage experimentation.

Ordinary school paste for the younger children is sufficient. For older children, provide a variety of paste, glue, musilage, and paper cement. Paste can be spread on with fingers, brush, or paste sticks. Instruct the children not to use too much paste but spread it thinly, so the finished picture will not be messy.

The paper may be torn as well as cut.

The children should be taught to fold, bend, twist, stretch, score, fringe, curl and pleat the paper. Principles of good design should be encouraged at all times.

The upper elementary school children should be encouraged to build up their composition with paper to develop a three-dimensional effect.

For added interest, children should be encouraged to experiment with varied media used over areas requiring detail. Papers (shiny, metallic, or corrugated) sequins, glitter, ribbons, and other shiny-surface materials will add interest to the design.

CARVING MEDIA

The carving media are those materials which occur naturally in large chunks or are pressed or molded into lumps prior to being worked. Stone, wood, plaster, paraffin, soap, styrofoam, salt licks, and various plastics are examples of carving media. Clay may be carved also, although it is generally considered a modeling medium.

Carving is a subtractive approach to sculpture. The carver begins with the solid chunk and scrapes, chips, cuts, files, or sands away parts of the chunk which he does not want, leaving those parts which will compose the desired sculptural forms. Small bits are constantly subtracted from the whole and, once severed, are not re-joined to the sculpture. The carving process differs from the modeling process in that the latter is an additive approach to sculpture where bits of plastic materials (such as clay) are added and blended onto a beginning lump, which is small, until the final work is built up.

1. Soap

This is probably the easiest and most yielding material for carving in the elementary grades. Carve and scrape with tongue depressors, popsicle sticks, scissors, blades, fingernail files, or other tools which are not dangerously sharp. Keep designs simple and avoid thin forms which will break easily. Try making smooth, curving,

abstract shapes with rounded corners and hollowed depressions. Try representational forms of people, animals, birds, and fish. Texture the surfaces with scratches and lines to suggest hair, fur, or feathers, or polish to a high gloss with a soft cloth. Because of the more advanced thinking involved in carving, third grade is probably the earliest practical level for introducing it.

2. Wax

Using the paraffin blocks available in the grocery stores, carve low relief (bas-relief) sculptures into $\frac{1}{2}$ inch blocks, or melt several blocks together and pour into a milk carton to form a larger block. Old candles and wax crayons may be added to the melted paraffin for color. Carve as soap. Do not throw away the scraps. They can be melted down and used again.

3. Woods

Soft woods such as balsa, soft pine, or basswood may be carved by older elementary school children. Forms should be carefully planned in advance and possibly drawn on the surface of the block.

Large areas of wood to be removed may be cut out with a coping saw prior to carving smaller forms with a knife. Wood files or rasps will help to round out the curves. Textures may be chipped or gouged into the surfaces or pieces may be sanded smooth. Leave unfinished, or wax, shellac, or varnish the surfaces. Details may also be painted on the sculpture. Since the use of sharp knives or linoleum gouges is required, avoid wood carving until fifth or sixth grade. Even then, not all children will have the strength and manual dexterity required.

4. Plaster

Plaster of Paris may be carved almost as easily as wax or soap, but is less yielding and somewhat brittle. Mix with water and cast in a milk carton or other small box. Various grainy substances such as sand, sifted dirt, saw dust, used coffee grounds, or vermiculite may be added to achieve the granular effect of stone. Add a small amount of tempera for interesting tonal effects. When carving, avoid slender appendages which will crack off. Surfaces may be textured or smooth. Be careful not to wash plaster down the drain where it will harden and clog the pipes. If several periods are devoted to carving the blocks, wrap it in wet towels between work sessions. The moist block carves easily and is not dusty.

5. Foam Glass

This is an insulating material which may be purchased at a building

supply house. It is very easily carved with a nail file or other "safe" tools.

6. Salt Block

Salt licks are cast blocks of salt, white or colored used for farm animals. Salt carves like soft stone. Use stone chisels and mallets. Smooth surfaces with files or sandpaper. White salt lick resembles fine grain marble.

7. Clay carvings

This may be done by forming a solid block of clay (well wedged and free of bubbles) and carving like soap. Allow the clay to dry to "leather hardness" for best results. It may be polished to a high gloss by rubbing with a dry cloth or paper towels. If the piece is not thicker than three-fourths of an inch, it may be fired. Thick pieces must be hollowed out prior to firing.

CUT PAPER MURAL

Creating a cut paper mural is an exciting experience for children. First, a topic should be decided upon, with the class sharing in the general planning. Originally, imagination, and responsibility by every member in the class are the basis of a successful mural.

A variety of paper is needed for this activity. Children can help to collect an assortment of paper (from tissue paper to a cardboard and boxes of all sizes and shapes) which will add to the three dimensional design. Before starting the mural, the students should be taught how to manipulate paper.

Forms made of modified cubes, cylinders, cones and other geometric shapes can be pasted or glued to the background. Other materials two- and three-dimensional, such as wire, string, and small pieces of wood of various sizes and shapes, can be used. Odds and ends of buttons, rick-rack, braid, paper doilies, and self-edgings are only a few of the extras that make a mural exciting. Crayons, tempera, chalk, watercolor, and color, and colored paper will add to the attractiveness of the mural.

Gare should be taken not to paste everything down flat. Good color distribution, composition, center of interest, unity, balance, proportion will help make an outstanding mural. Avoid the occurrence of too many isolated forms in space by encouraging placement of one object over another, forming a pleasing overlapping pattern.

Clay - pinch modeled figure

Making a small pinch modeled figure offers an excellent opportunity for the development of the creative imagination in children.

Figures made in this way should be small. Start with a portion of wedged clay of medium-soft consistency about the size and shape of a cheese-spread glass. Grasp this elongated cylinder in the right hand and squeeze. While still holding the clay, strike one end of the wad lightly on the table top to flatten it slightly.

Set the flattened end of the wad on a tile or plaster bat so work can be turned and seen from all sides during the modeling.

Examine the squeezed clay for suggestions of form or figure and add any details needed to amplify it. Ears can be pinched to shape; eyes made by pinching bits from the mass, and parts of the shape; accented with finger modeling. Let the fingers be the only modeling tools, and remove none of the clay of the original cylinder for the most direct effects.

When modeling of the figure is complete, let it dry very slowly and completely before firing.

Clay - pinch pot method

The ancient pinch pot method of making pots serves as an excellent introduction to clay. The size of the pot is determined by the amount of clay that can easily be held and worked with the hands.

Materials needed:

clay

simple tools for smoothing and polishing

Steps in constructing the pot:

1. roll the clay into a ball, one that can be held easily in the hands.
2. hold the clay in both hands and press the thumbs into the ball, making a center depression
3. slowly pinch the clay outward, forming the walls of the pot
4. pinch the wall until it is of even thickness
5. smooth the pot with the fingers or a wooden tool until its surface has a uniform quality; the finger pattern need not be smoothed away but may be retained as a part of the design; the even, regular pattern of the finger marks on the surface is traditionally prized as characteristic of a fine pinch pot

STRUCTURING MEDIA

Structuring media include materials which may be joined together to form a construction in space. Materials for these activities are varied and abundant. Finished compositions might be constructed of objects and materials, or stress objects that have been created by man. These varied materials may be used as complete forms in themselves or may be altered, carved, bent, or painted by the student. The products of these class projects are often the highlight of a class or school exhibit.

1. Wire sculpture

Any soft, easily pliable wire of copper, aluminum, or the stove-pipe variety is usable. A small block of wood or heavy piece of cardboard can be used for a base if desired. The material is best used in a three-dimensional manner by shaping, coiling (winding on over pencils or dowels), and binding. The sculpture should be viewed frequently from all sides during its execution to maintain interesting form and to check that the material is not used only in an outline or two-dimensional manner. To insure against accidents, the sharp ends of the wire should be bent into small loops before working, since pieces approximately 24 to 30 inches in length must be used. Others are added as needed.

2. Wire sculpture with mixed media

After the wire sculpture has been formed, it may be left in its original state or it may be finished by using the following methods:

- A. Wire can be completely or partially draped with fabric and dipped into liquid plaster of Paris. This method results in an interesting treatment which when hardened, may be painted, sprayed or left white.
- B. By covering the wire with sawdust, wheat paste, clay mixtures, or other media, thickness and variation can be added to the wire, resulting in a more interesting piece of sculpture that may or may not be painted.
- C. Wire and wire screening may also be used, either together or in combinations with the described coating mixtures.
- D. Wire and scrap materials, including cut tin cans can be manipulated (for example, wire screening), though caution is advised when using sharp or jagged edged materials with children of any age.

3. Pipe cleaner

The use of these is limited because of their short length, but they may be employed in much the same way as wire sculpture. They are recommended for smaller children.

4. Toothpick Sculpture

Toothpicks may be adhered to each other in a three-dimensional manner with quick drying airplane type glue. They may be coated or dipped with plaster of Paris or mixed media for variations. Tall, unusual structures or hanging art forms can be created.

5. Wood Structure

Small pieces of wood may be grouped and arranged in an interesting manner to create a three-dimensional form. Nail, glue, staple, or otherwise join them together.

6. Reed Sculpture

Reeds soaked in water can be shaped and made into unusual sculpture. The pieces are glued or bound to each other with thread and can be embellished by colored tissue or other materials.

7. Plastic Sculpture

Plastic, preferably clear, may be heated and formed into interesting, permanent shapes. For variety, the material may be engraved and/or combined with different media.

8. Cardboard structure

Cut and scored pieces of cardboard can be balance, stacked, and glued to create towering forms or delicately balanced shapes.

9. Box sculpture

Boxes can be used in several ways to create art forms. They can be arranged next to each other, combining various shapes, and be glued, stapled, and painted. Smaller boxes can be placed within a large box to form interesting patterns. They also may be sprayed and painted.

10. String sculpture

String may be laced through or across a framework made of wood or embroidery hoops. Nails may be driven into the frame around which string may be wrapped, or holes may be drilled in the wood through

which the string may be threaded. Heavy wire also can be formed into interesting shapes, and string can be tied or glued to them. The possibilities for creating various designs are endless. For beginners, cigar or heavy candy boxes may be used for a frame by removing the lid. The bottom should remain intact to insure firmness.

11. Stable sculpture

Stable sculpture is a fixed sculptural construction using any desirable media, including those described and usually formed in an abstract manner.

12. Mobile Sculpture

Mobile sculpture is a delicately balanced sculptural construction usually abstract, which is put into movement by air currents, resulting in a constantly changing overall arrangement. Any materials may be used, but frequently the arms or spines are of slender wire from which a few well-chosen objects are hung by thread or very fine string in such a way that they avoid touching each other as they move.

FABRIC CLEANERS

To remove:

1. Candlewax or Paraffin- use carbon tetrachloride.
2. Glue- sponge with lukewarm water.
3. Ink spots on fingers- rub on a little ammonia and rinse in clear water.
4. Tar- use carbon tetrachloride or commercial automobile tar remover.
5. Gum- use carbon tetrochloride.
6. Grease and oil stains- place material to be cleaned at least one inch deep in cornmeal or salt.

CLEANERS AND THINNERS

1. Water-base paints: Watercolor, powder paint, India ink, or finger paint- water is best for both cleaner and thinner.

2. Shellac: Alcohol for both cleaner and thinner.
3. Rubber Cement:
 - a. An eraser or a ball of dry cement is used for cleaning
 - b. Benzene for thinning
4. Varnish: turpentine for cleaner and thinner

5. Printer's Ink:
 - a. Carbon tetrachloride for cleaner
 - b. Varnish for thinner
6. Enamel: turpentine for both cleaner and thinner
7. Oil Paint:
 - a. Cleaner- turpentine, soap or detergent.
 - b. Thinner- turpentine or linseed oil
 - (1) turpentine produces a dull finish
 - (2) linseed oil produces a glossy finish

BULLETIN BOARDS - GENERAL

In all grades the children can make a board by putting their own work or items they find interesting. In the lower grades the teacher can make the background and border.

PAPIER-MACHE

If some forms (plastic bottles, wire, cardboard boxes) are used under the papier-maché the objects will dry faster.

Be sure the object is completely dry before painting. If the object molds the mold can be brushed off and painted over.

Miscellaneous Drawing Media and Tools

1. Leaded pencils are the most readily available drawing tools. Provide soft-lead pencils, perhaps even the broad flat-surface pencils occasionally, using newsprint, manilla, shirt-back cardboards, etc. The drawing surface should have "tooth" (be slightly rough). Draw lightly or press down hard. Try smudging areas or lines to achieve soft grays.
2. Colored pencils permit the drawing of precise and delicate colored lines. They may be used to shade and build up tonal areas. Use them crisply or smudge them with facial tissues or fingers. In the case of water-soluble "leads", the drawing may be softened and blended by wiping with a moist sponge or held under running water. Draw on white or light colored paper or cloth.
3. Grease pencils come in several colors and black. They will mark on smooth surfaces such as glass or plastic, as well as on paper. They produce dark lines or delicate tones, depending on various hand pressures. Try them in combination with watercolor or draw on plastic detergent bottles to create surface details for animal or people forms.
4. Penholders and points: a wide-variety of penpoints may be inserted into the common straight penholders. Use with India ink or colored ink. Work directly with ink, avoiding merely "inking-in" pencil drawings. For different effects, vary both the size of the point and the quality of the working surface. Draw on dry paper for sharp lines or wet paper for fuzzy ones. Combine pen drawings with loose, wet, transparent water color painting.
5. Felt pens: are available with various colored inks. Effects from bold, dark lines to soft shadings may be achieved by

varying hand pressure. They will mark permanently on any surface. Use them for drawing on materials that resist other inks and paints.

6. Charcoal is one of the oldest and finest drawing media. It is capable of producing a very wide range of light and dark grays and blacks. It may be used crisply or blended and rubbed to produce sensitive shadings and achieve volume through lights and shadows. Work on white or pastel colored papers. "Fix" the surface by spraying with a Shellac and alcohol solution or with a plastic pressurized spray.
7. Sticks and twigs of varying sizes and flexibilities may be dipped in thin paint or ink and used as "pens" or "brushes". Try drawing with the sharp end of a toothpick to make crisp lines; then use the chewed end of a green twig to introduce fuzzy, mealy lines into the same drawing. Drag, push, dot, and skitter a brittle twig over a surface to achieve varied linear effects.
8. Brushes of all sizes and qualities may be used to draw lines as well as to paint big flat areas. Try drawing on various surfaces such as wrapping paper, standard art papers, printed or unprinted newspaper stock. Try big coarse brushes and fine soft ones. Try a pastry brush or the brush on the end of a typewriter eraser.
9. Liquid shoe polish and daubers provide a complete "drawing kit". Shoe polish makes big, bold lines when the dauber is wet or soft grayed lines when it is almost dry. Draw on big sheets of brown wrapping paper or on printed or unprinted newspaper stock.
10. Feathers of varying sizes and spring texture make lines of delightful quality. Dip in ink or thin paint and draw big, free, pictures.

USE OF COLORED CHALK

1. Dry chalk drawing

The chalk is used as any drawing media making fine or broad strokes using the end or side of the chalk.

2. Chalk rubbings, textures

By drawing with the point or side of chalk upon thin paper placed over a textured area, the underneath texture will appear as a rubbing upon the paper surface.

3. Chalk smudge stencils

The effect is similar to that achieved by crayon smudge stencil method, but is easier for little children to produce.

4. Chalk on sandpaper

Using the sandpaper, wet or dry, apply colored chalk to achieve vivid, unusual effects.

5. Wet chalk on dry paper

Chalk can be dipped in water and applied immediately to the paper for a rich, colorful effect. Since the chalk dries quickly, frequent dipping is necessary to keep it moist.

6. Dry chalk on wet paper

Moisten the paper and draw upon it with dry chalk, using the point or side. Try smudging the chalked areas with fingers for variation. Moist newspapers underneath help the surface paper retain the necessary dampness.

7. Dry chalk

Dry chalk can be used with buttermilk, liquid starch, powdered milk, or powdered starch and used with water. After the surface of the paper has been covered with one of these media, draw upon the paper in any manner desired, then use fingers or hands as in finger painting techniques.

WET CHALK DRAWINGS

Colored Chalk

Paper (manila or construction)
Newspaper

Process: Wet chalk produces more brilliant colors and can be done by either wetting the paper or the chalk. Wetting the chalk is messier and should be limited to the upper grades.

If you wet construction paper, place it on a newspaper so the color might fade on the table.

Suggestions: Homogenized milk or buttermilk can be used for different effects—paint milk on paper and use dry chalk.

Also to one quart of water, add 7 rounded tablespoons of wheat paste, stir well or shake in tightly closed jar.

USE OF CRAYONS

1. Crayon rubbings

Textured objects, cut paper designs, string, and other materials may be placed under a light or medium weight paper, the surface of which is rubbed with the side of the crayon. The design underneath will appear upon the surface of the paper.

2. Crayon resist.

Heavily cover the paper with crayon, leaving occasional white areas. Use a large brush dipped in slightly thinned opaque watercolor; cover the entire crayoned area quickly. The white areas where the crayon resists the water base paint causes unusual effects. Although black paint is frequently used for this technique, other colors also produce interesting results. A delicate quality may be achieved by covering a crayon drawing with transparent watercolors.

3. Crayon under finger paint

Solid, heavy crayon coloring on finger paint paper or any

4. Chipped and ironed crayons

Crayons may be chipped or scraped with knives or scissor blades. The collected chips may be closely arranged upon paper which is then covered with another piece of paper and pressed with a warm iron. When these chips are sufficiently melted, the top sheet may be peeled off, or, for variation, slightly slipped before removal. Either the original, the monoprint, or both may be used.

5. Crayon on textiles

Crayoned designs upon fabrics can become fairly permanent and washable by using a warm iron to press the finished piece between two sheets of plain paper, until the drawing is visible on the wrong side of the textile. By experimenting with various degrees of pressure and methods of application of the crayon, unusual results can occur. More variation is possible by the choice of different weaves of fabric.

6. Crayon glaze

Crayons may be applied heavily upon drawing paper, then scraped off by a knife or single-edge razor blade. The soft colors of the crayon remains upon the surface. This technique can be successfully used with other media. It should not be confused with crayon engraving.

7. Crayon engraving

The entire surface of the paper should be heavily covered with crayons, preferably light, bright colors. This is then covered with a layer of chalk dust from a chalk eraser. The area is then covered solidly with black or dark crayon which may be burnished with the palm of the hand. Using a tool such as a partially unfolded paper clip or a compass point, scratch a design into the top covering of crayon to reveal the colors underneath. A variation can be achieved by covering the first layer of crayon with any color of opaque water paint to which a small amount of liquid soap has been added. The addition of liquid soap to the paint permits it to adhere to the crayon surface. Then scratch design as described above.

Other effects result from placing textured objects underneath the paper, as in crayon rubbings, and scraping the surface with a single-edge razor blade.

8. Crayons on sandpaper

When sandpaper is used as a surface upon which to draw, rich textural effects can be achieved.

9. Crayon smudge stencils

After cutting a stencil from any firm paper place the stencil on a piece of paper and firmly push the color away from the stencil edge onto the surface beneath.

10. Rubbed crayon drawing

Any drawing with thickly applied crayon may be rubbed with tissue or the palm of the hand. Varied effects, some of parchment quality, result.

PAPIER-MACHE SCULPTURE

Papier-maché pulp--tear absorbent paper into very small pieces and soak in warm water for at least 36 hours. Prepare the pulp according to a favorite recipe.

The prepared pulp may be modeled as clay or any other plastic modeling material. It can be pulled or pushed until the mass has achieved the desired shape. It is advisable to use the pulp mixture to model objects. It may be modeled over light bulbs, balls, bottles, tin cans, paperboxes, wooden blocks, and wire. If preference is for a smooth object, continually smooth it during the modeling process. It becomes very hard when thoroughly dried. The object may be sandpapered; holes may be bored into it; or it may be carved. Tempera, watercolor, or enamel paints may be used to paint the object and, if preferred, it may be shellacked. Decorations such as beads, buttons, or yarn will enhance the appearance of the object.

1. Strip newspaper mache over a framework.

A framework of an object is first constructed from a coat hanger, bailing wire, chicken wire, rolled newspaper with wire inside, rolled newspaper tied with string, wood or crushed newspaper filled with paper bags, or cardboard rolls. Use string, wire, rubberbands, or tape to hold the frame work in position. Small wads of newspaper may be added to build up the forms. Strips of pasted newspaper may also be used to hold the shape in place. Have ready newspaper strips torn vertically into about 1-inch strips.

When the desired shape has been obtained, several coats of paper strips saturated with papier-maché paste will strengthen the form and add to its durability. Apply the strips in all directions to insure strength; care must be taken that there is a constant overlapping of the ends in the pasting process. Alternating colored newspaper with a layer of white will make it easier for students to cover the form. Tissue paper, soft paper napkins, cleansing tissue, or toilet paper may be pasted over the form for either a smooth or textured surface.

After the form has dried thoroughly, it may be painted with a variety of different paint mixtures (see recipes) and shellacked. Materials from the scrap box may be added to enhance the form.

2. Papier-maché over a removable foundation

A variety of creative objects can be made over a base and later removed. Various foundations such as bowls, plates, hollow containers, plastic eggs, light bulbs, stones, balloons, vegetables,

fruits, gourds, and stuffed paper bags are usable. Modeling clay is also recommended. The child can create his own foundation in clay.

To facilitate easy removal of the foundation, grease it with petroleum jelly, wax it, apply two thickness of wet paper strips, or cover it with waxed paper or plastic wrap. Apply the papier-maché strips to the base by overlapping the edges and pressing them down to fit the contour of the form smoothly. Colored newspaper strips can be alternated with plain paper strips. This helps the children to count the layers.

Care must be taken not to have too much paste on the strips. If the paper is too slippery, it is too hard to handle. About four layers of pasted strips can be applied without danger of mildew. When dry, more layers can be added or more stuffing or wads of newspaper used for additional thickness, if desired. Appendages such as legs, arms, tails, ears and noses can be attached at this time before the final stage pasting.

When thoroughly dry, if the base such as a light bulb or clay form is to be removed, use a paring knife to cut lengthwise around the form. With the paper shell in two pieces, remove the inside base. It is not always necessary to remove the foundation.

Stones, marbles, balls, beans, or peas can be placed inside the form to give it a tinkling sound.

Bind the halves together with papier-maché strips. Finish the layer, smoothing carefully to hide the seam.

The dried papier-maché form can be sanded and finished with crayons, crayon resist, enamel, or powder tempera paint. Surface effects can be enriched and varied by gluing fabrics, colored and glazed papers and other materials. These materials can be applied in small sections to give mosaic effects or in larger sections to give other effects.

3. Papier-maché built up over a permanent foundation

Use papier-maché pulp or paper strips over mailing tubes, paper plates, or a collection of boxes of a variety of sizes.

The boxes or mailing tubes can be glued, tied, stapled or fastened. The openings in the boxes can be cut or flaps left open or cut off. Objects may be padded with wads of crushed newspaper strips. When the desired shape has been achieved, several coats of papier-maché strips will strengthen the form and add its durability.

After the form has dried thoroughly, it can be sanded and painted with tempera, watercolor, enamel paint. See paint recipes. Mosaic effect can also be achieved by using colored, metallic and other paper. Texture can be added by use of seeds, sand, cornmeal, and so forth. The whole creation can be enhanced by shellacking, if so desired.

4. Tissue papier-mache

Soak torn tissue paper pieces in creamy wallpaper paste. Mix the materials into a workable pulp. Either the methods of push and pull or the additive way of modeling may be used, depending on the age level of the class. When the forms are thoroughly dry and sanded, they are ready to be painted and decorated. Tempera, watercolor, or enamel paint can be applied.

5. Crepe papier-mache

Prepare the crepe papier-mache according to the recipe. Let the students model in the same manner as clay or any other plastic material by pulling or pushing the mass until the desired shape has been obtained. When thoroughly dry, the objects will be very durable and light as well as colorful. Materials from the scrap box may be added to make an interesting creation.

In addition, free-form shaped stones or gourds can be used as a base to add the crepe papier-mache. The children can create interesting, imaginative forms. The dye in the crepe will stain hands and clothing.

6. Miscellaneous papier-mache

During the school year, many times one of the units of work can be enriched or made more meaningful through special papier-mache projects, such as making a relief map, a diorama, shield, castle, and so forth. In many instances, papier-mache may be the very material which most easily solves the problem.

PAINING

Opaque and Transparent Watercolors

Paints- a mixture of pigment in some suitable liquid or cake form which can be used to adhere to and cover a surface in thin coats. There are two basic types, opaque and transparent.

Opaque watercolors- consists of pigment suspended in a liquid of light creamy consistency which thoroughly covers the painting surface.

Liquid tempera is a ready-mixed opaque paint in liquid form. Dry tempera is opaque paint in powder form which can be mixed with any suitable liquid, such as water, liquid soap, liquid starch, buttermilk, etc.

Fingerpaint is a thick paint, with the smooth consistency of corn starch pudding. As it is spread over a moist paper surface, the varied pressures of fingers and hands cause it to distribute itself in uneven thickness, sometimes thinning to transparency and sometimes building up to opaque ridges.

Transparent watercolor consists of a dyelike paint of thin quality through which the pigment surfaces or outlines are discernible.

Painting with opaque watercolors

1. "Juicy Painting"- Painting with brushes loaded with tempera which is the consistency of light cream. The paper may be dry, colored, white, printed or unprinted newspaper stock. Work broadly on a large surface, avoiding small details.
2. Dry brush- The smallest amount of paint is used on the brush on dry white or colored paper, printed or unprinted newsprint. Dry brushstrokes are textured and rough. This provides interesting contrast when used in the same picture with "juicy" painting.
3. Sponge painting- Paint with several sizes of sponges ranging from small scraps to whole rectangular pieces. Work directly on different kinds of paper, without preliminary pencil or brush drawing. Smear, wipe, pounce, trail or dot the paint to achieve various textural and tonal effects.
4. Spatter painting- Force paint through a wire screen, using a sponge or brush. Paint is dropped on paper. Build up a picture.

with spatters or achieve shapes and masses by covering parts of the paper with cut-paper shapes.

5. String painting- Dip the string into thin paint. Arrange the string on the paper. While the string is still wet, either fold the paper or place another sheet over it and press. Pull the extended end or ends of the string. The process may be repeated with the same color or with a different color.
6. Liquide tempera under India Ink- Paint the picture or design with liquid tempera. Let dry. Hold the painting under running water, allowing part of the ink to cling for textural toning effects.
7. Liquid tempera under crayon- Paint the picture or design with tempera paints of normal consistency. When dry, cover each painted color with a contrasting crayon color. Run hot tap water over the crayon to soften it, and wash bits of the crayon away.
8. Liquid tempera and sandpaper- Cover cardboard with a light coat of thinned glue. Paint a design or picture with liquid tempera of normal consistency. Paint two or three coats of each color over the picture. When thoroughly dry, sandpaper the painting until the bottom color shows through in some areas. Dust well and shellac or varnish.
9. Powdered tempera and wet paper- Dampen the paper well and sprinkle with the desired powdered tempera colors, building up the painting either with or without using the brushes.
10. Liquid tempera "blob" painting- Place drops of tempera, one or more colors, on the surface of the paper. Fold and press the paper or press another sheet of paper against the surface so the paint will be squeezed and blotted. Accidental designs so attained may be "finished products" or the teacher may try to discover representational forms, having the student add clarifying details with a brush or crayon.
11. Liquid tempera on wet paper- Thoroughly soak the paper. Blot the pools of water. Paint directly on the wet paper, encouraging the colors to blend together in a fuzzy manner. Painting may be completed by adding details after the paper has dried.
12. Finger painting- Either commercial or homemade finger paint may be used on wet shiny surface paper. Experiment by using various kinds of strokes and the many ways of using the hand and fingers. For more finished effects, smooth with a hot iron when dry.

PAINTING WITH TRANSPARENT WATERCOLORS

1. Dry brush- With small amount of paint on the brush, swish the brush over the paper to achieve the desired textural effect.
2. Transparent watercolor on wet paper- Blot the wet paper and paint on it directly. The watercolors will fade and blend in a fuzzy manner. Some areas will accidentally be left unpainted and will add sparkle to the painting.
3. Minglings of transparent watercolor- "Blobs" of paint on either dry or wet paper will produce interesting effects. Tilt the paper and let the blobs run together, or mingle a blob into a little puddle of water next to it. Use pencils, ends of brushes, or scraps of paper to guide and control the minglings. Observe and identify the hues and tints so produced.
4. Transparent watercolor "blob" and folded paper- Drop "blobs" of paint on the paper and fold it. Rub over the folded paper and open it up. This may be repeated again, using different colors or as many as desired. Sometimes the effects produced will suggest subject matter that can be enhanced by more controlled overpainting.
5. Straw blowing- Drop several "blobs" of watercolor on the paper. Blow through the straw over the "blob" and let the paint run into interesting patterns and effects.
6. Watercolor painting on tissue paper- Drop "blobs" of paint on tissue paper and outline the designs with tempera paint. Work either abstractly or representationally.
7. Watercolor and crayons- Draw heavily with crayon, leaving some of the paper untouched. Complete the picture or design with watercolor paints.
8. Watercolor and rubber cement- Paint out some parts of the paper with rubber cement and allow to dry. Cover the paper with watercolors and allow to dry. After the paint is thoroughly dry, "erase" the rubber cement and interesting white spots will appear. This process may be repeated several times over the same paper.

INKS AND DYES

1. Silhouettes- Paint directly with the brush and ink on dry paper. Either draw outlines with the brush and fill in, or start with indefinite large areas of ink and "build out" the contour details.

2. Ink drawings- Dip the pen, small brush, wooden stick, or lollipop stick into the ink and use it as a drawing instrument. watercolor or colored inks and dyes may be used over the ink drawing.
3. Ink and string technique- Dip the string into the ink. Lay the string in any desired arrangement on the paper but allow an end of the string to trail off the paper. Cover this with a second piece of paper. Lay a board over this and press lightly. Pull the string out from between the board and paper. This process may be repeated with different colored ink.
4. Ink and tempera paint- Paint a design with tempera. Let dry and cover with colored waterproof inks. Hold under running water to wash off some of the surface paint.
5. Dye on cloth

Materials: Old white sheets, mattress covers,
any white cotton material
dye

Procedure:

1. Boil dye, let cool and store in large glass jars with lids
2. Fill baby food jars with each color for pupils to use.
3. Pupils simply paint on the material with the dye.

6. Batik (Basic method)

Materials: Material (white cotton or silk)
Dyes (colored waterproof inks and felt tip pens can also be used)
Paraffin
Brushes (old ones that can be thrown away or used only for this project) (Wax can be removed from brushes with mineral solvents.)
Electric hot plate for heating wax (if heated over open flame, use an asbestos mat)
Double boiler or tin can placed in a pan of water
Electric iron
Waxed paper, newsprint, newspaper
Large glass, copper, or enamel container in which to dye the fabric

Rubber gloves (optional)
Stirring sticks
Plastic clotheslines and clothespins
Acetic acid for fixing the dye (household vinegar will do)
Solvents for removing the wax (mineral spirits, commercial cleaning fluids, gasoline, kerosene)
Starch solution (optional)

Procedure: 6

1. Washing and pressing the fabric before dyeing will remove any filler from the fabric and prevent shrinkage later
2. Apply a thin starch solution to the fabric and press it; this permits a smooth application of the wax and prevents edges of the wax from bleeding during the waxing process; this step is optional for bleeding may be desired
3. A complete color sketch of the design is very helpful before starting the waxing process
4. Draw the design on the fabric with charcoal, it will eventually wash out, pencil will not
5. The wax is now heated and the fabric placed on waxed paper or other non-absorbent material, the wax is applied to the part of the design that is to remain white after the first dyeing
6. The wax should penetrate the fabric immediately upon contact, if it does not it should be reheated; look at the back of the fabric, if the wax has not penetrated it may have to be applied to the back
7. The first color should be the lightest; all other colors will go on top of this and be influenced by it
8. Mix the dye as follows:
 - a. dilute in hot water
 - b. strain to remove any undiluted particles
 - c. add enough water to cover fabrics
 - d. wet fabric before immersion in dye
 - e. stir constantly for even application
 - f. remove carefully from dye bath

- g. rinse in clear water to remove excess dye
- h. hang to dry
9. Dye water should be kept like warm to cool; hot water will melt the wax and cold water will make the wax too brittle
10. Enough water should be used in the dye bath to cover the piece completely; pure soap may be added to help the color go on evenly; one tablespoon of powdered soap is enough; soap powder can be added to the final clear rinses to help set the dye
11. Dye becomes streaked if applied to dry fabrics; the color will appear brighter and darker when the fabric is wet so it should be left in the bath longer than the color desired
12. After the dye is applied, the fabric should be rinsed carefully to remove excess dye, blotted, and hung to dry
13. When the fabric is completely dry a second coat of wax is applied to all areas that are to remain the color of the first dye; follow the same directions for the first waxing
14. These steps are repeated for each color to be dyed; the wax is not removed until all colors have been applied
15. To remove the wax after the final dyeing place several sheets of newspaper on the table and then a sheet of blank newsprint, the fabric, newsprint and several sheets of newspaper; press with iron hot enough to remove wax; this should be done several times to remove all wax using absorbent paper each time
16. Fabric can also be dipped in a vat of gasoline, kerosene, or inexpensive solvent to dissolve the wax
17. Article should not be washed but dry cleaned; to fix the dye, saturate a cloth with white household vinegar, lay it on top of the batik and press it with an iron

7. Batik (Direct painting method)

Materials: same as for above

- Procedure:**
1. Fabric is placed on waxed paper and heated wax is brushed on areas to remain white
 2. Paint unwaxed areas with dye or waterproof inks, allow to dry
 3. Cover first dyed areas with wax and apply second color, repeat until all colors are applied
 4. Entire surface is now covered with wax and allowed to dry
 5. The fabric is now crumpled and dipped into the final, darkest dye bath
 6. The dye penetrates the fabric where the cracked wax exposes it to create an overall pattern of dark veined lines
 7. Remove the wax by rubbing the dried fabric; this wax may be saved and used again
 8. Remove the remaining wax with an iron described in the above project

8. Tie and Dye

Materials: Cloth
Dye
String, thread, or waxed string

- Procedure:**
1. Gather up the cloth here and there and tie it tightly with the string
 2. Immerse it in the dye bath
 3. When you remove the string you have a dyed cloth with undyed dots, rings, or squares

PRINTMAKING

These materials will be needed for most of the following projects:

1. Printers ink (see blockprinting inks- Recipes)
2. Brayers (rollers)
3. Large piece of glass or wax paper on which to spread ink
4. Spoons to rub prints or printing press
5. Newspapers
6. Printing paper (any paper that is fairly absorbent)

PRINTING (GLASS LITHOGRAPHY)

Materials:

Sheet of glass
Wax crayons, candles, or grease pencils
Sponges
Printing ink (oil base)

Procedure:

1. Wash glass to get any grease off
2. Draw design on glass with crayon, candle, or grease pencil
3. Moisten the glass with a clean, wet sponge
4. Ink with oil base ink - ink will stick on wax lines, not on the wet glass
5. Wet paper and lay on glass
6. Press gently with clean hands or a soft cloth

MONOPRINTS

Procedure:

1. For each pupil put a small amount of ink (printing), vaseline mixed with powdered tempera, or oil paint on a piece of glass, waxed paper, or a table
2. Pupils may use hands or any small tools - sticks, material, forks - to make a design in the ink
3. When design is completed, place paper on

- design and rub gently with clean hands -
this will produce one (mono-) print
4. Prints may be hung from a line if no room is available to lay them out
 5. If pictures are hung, ink must be kept to a tacky consistency or it will run

PRINTING (CLAY)

Materials: Clay (that has hardened) natural clay is very good for this
Rolling pin
Printing ink (oil or water base)

- Procedure:**
1. Roll out $\frac{1}{2}$ inch thick slabs of clay
 2. Let clay dry to a leather-hard consistency
 3. Cut designs in leather-hard clay
 4. Ink design
 5. Use gentle pressure to print (always lay paper on print)

PRINTING (PLASTER BLOCKS)

Materials: Plaster of Paris
Box tops
Carving tools (sticks, old silverware, etc.)
Oil base printing ink

- Procedure:**
1. Cast $\frac{1}{2}$ inch blocks of plaster in box tops (if blocks are used for plaques after printing, place a small metal hook in the top of the block and use the bottom for printing)
 2. Carve and/or cut the block when the plaster is hard but still moist (carving on dry blocks creates dust)
 3. Dry the blocks thoroughly before printing
 4. Ink the blocks and use gentle pressure for printing.

WAX BLOCK PRINTING

Materials: $\frac{1}{2}$ inch thick paraffin blocks

Cutting tools (any fairly sharp instruments)
Printing ink (oil base)

- Procedure:
1. Students carve designs in paraffin
 2. Ink the blocks
 3. Place paper on blocks
 4. Gently rub paper with hand

WOODCUTS

Materials: Scrap blocks of soft wood (pine)
Wood cutting tools
Brayers
Printing ink (water or oil base)

- Procedure:
1. Have students make a sketch of design using only solid black and white areas.
 2. Explain the design will be backward when printed
 3. Draw sketch on block of wood
 4. Have students cut away those parts of the sketch which appear white
 5. Spread ink on a piece of glass or waxed paper and roll brayer back and forth to evenly distribute ink on brayer
 6. When blocks are carved, roll brayer over them to get an even distribution of ink
Place paper on inked block and rub with a spoon
 8. Prints may be hung from a line with clothespins to dry if there is no place to lay them

CORREGATED CARDBOARD PRINTING

Materials: Corrugated cardboard
Scissors and razor blade
Brayers
Printing ink (water base)

- Procedure:
1. Have students make a sketch of design using only solid black and white areas
 2. Explain that the design will be backward when printed
 3. Draw sketch on cardboard

4. Have students cut away the top layer or paper on those parts of the design which appear white
5. Spread ink on piece of glass or waxed paper and roll brayer over ink to get an even coat.
6. When boards are completed, roll inked brayer over board
7. Place paper on inked board and rub with a spoon
8. Prints may be hung from a line with clothespins to dry

PRESSED CARDBOARD PRINTING

Materials: Pressed cardboard. (any cardboard, used or new that is not corrugated may be used)
Scissors
Glue

- Procedure:**
1. Have pupils make a sketch of design using only black and white areas
 2. Explain that the design will be backward when printed
 3. Draw sketch on cardboard
 4. Have pupils cut black areas (negative spaces) out and glue them on another piece of cardboard (this piece can be corrugated) in exactly the same place they appear on the first board
 5. When glue is dry follow steps 5-8 on above procedure

PRINTING (WOOD AND RUBBER INNER TUBE)

Materials: Scrap blocks of wood
Old inner tubes
Scissors
Glue

- Procedure:**
1. Have pupils make a sketch of design using only black and white areas
 2. Explain that the design will be backward when printed.

3. Draw black portions of design on a piece of the inner tube
4. Have pupils cut negative areas out and glue them on the piece of wood in the same place as on the design.
5. When glue is dry follow steps 5-8 on above procedure

PRINTING (SCRAP MATERIALS)

Materials: Cardboard
 Glue
 Scrap material- toothpicks, string, yarn, cloth, gauze, net, matches, screen wire, raised paper, rick-rack, etc.

- Procedure:**
1. Cut a piece of cardboard for each child; it should be smaller than the printing paper
 2. Have pupils glue scrap material onto the cardboard to create a design
 3. When glue is dry, ink brayer and roll across the top of the print.
 4. Put paper on top of print and rub with back of spoon
 5. Prints can be hung to dry

SCRATCH BOARD

Materials: Cardboard
 Paraffin
 Talcum powder (or white chalk dust)
 India ink or black tempera mixed with liquid starch

- Procedure:**
1. Rub paraffin well into cardboard continuing until a thick layer of wax is on the board.
 2. Dust powder over surface of board to achieve a proper texture for the ink
 3. Cover the entire surface with ink and let it dry thoroughly
 4. The student may now draw a design on the board using pins, penpoints, knives, or other pointed objects.

SANDPAPER PRINTS

Materials: Fine grade sandpaper
Crayons
Printing ink (water base)

- Procedure:**
1. Draw directly on sandpaper with crayons making heavy marks and build up wax (the wax is the part that will be printed)
 2. Ink sandpaper
 3. Place printing paper on several newspapers and place the print face down on the printing paper
 4. Rub the back of the print with the smooth side of a spoon
 5. Print can be inked again and again for more prints

MARBLE PAPER

Materials: Large water container (dishpan, cookie tin, baby bathtub)
Oil paint
Turpentine

- Procedure:**
1. Mix a small amount of oil paint with turpentine and place on top of the water, this will float and not mix
 2. Have the students make a design by using various colors and swirling the paint
 3. Place paper on water and remove immediately
 4. Oil will stick to paper
 5. Let dry flat

GENERAL PROJECTS

1. COLLAGE

Materials: Paper or cardboard
Glue
Scissors
Paint (optional)
Crayons (optional)
Scrap material- cloth, papers, cellophane, foil, leather, wood, saw dust, feathers, bark, stones, sand, weeds, buttons, yarn, string, wire, pop can tops, wooden spoons, bottles caps, toothpicks, old jewelry, etc.

Procedure:

1. Pupils glue scraps onto paper or cardboard in any design
2. Paint and/or crayons may be used to create various effects

2. MONTAGE

Materials: Paper or cardboard
Glue
Scissors
Magazines or old catalogues
Paint (optional)
Tissue paper (optional)
Crayons (optional)

Procedure:

1. A montage is a collage using pictures or items that are the same: a montage of different pictures of houses placed on the paper in a pleasing design, a montage of different pictures of birds, a montage of different pieces of material, buttons, weeds, pieces of bark, jewelry, etc.
2. After pupils have collected the items or pictures they will use, have them glue these on the paper or cardboard
3. Paint, tissue paper, or crayons, or a combination of these materials may be used with the pictures to offer variety

3. PLASTER CASTING

Materials: Strong shallow cardboard boxes or box lids
Plaster of Paris
Wet sand
Objects (scrap material)

- Procedure:**
1. Fill boxes $\frac{1}{2}$ full with sand
 2. Wet sand just enough for it to absorb water
 3. Have pupils make design in wet sand, either drawing a design with a stick or pressing objects into the sand (shells, jar lids)
 4. Mix plaster (always add plaster slowly to water--never add water to plaster)
 5. Carefully pour plaster on wet sand.
 6. When plaster "sets up", a hook can be added in back to hang plaque (be sure to note top and bottom of plaque on the box so you will not put the hook in the wrong end)
 7. Place the boxes in an out-of-the-way place to dry for about a week
 8. When thoroughly dry (the plaster will be room temperature) carefully lift cast and brush loose sand away with a dry brush

4. 3-D PAPER DWELLINGS

Materials: Scrap material
Drinking straws
Corrugated cardboard
Construction paper
Paste
Scissors
Stapler

- Procedure:**
1. Drinking straws and corrugated cardboard (with one outside layer of paper torn off) can be used for log cabin or hogan-type dwellings
 2. Paper dividers from Contac cold tablets can be used for sky scraper-type buildings

- Suggestions:**
1. Use for studying different cultures and their dwellings
 2. Use for making model communities
 3. Use for studying immediate community

5. CROWNS AND HATS

Materials: Heavy cardboard
Aluminum and gold foil
Colored paper
Scissors
Paste
Stapler

Procedure:

1. Draw several shapes of crowns and hats on the board to give the children an idea and erase so the children will not copy exactly
2. Show how to measure head with cardboard before drawing (be sure the pieces of cardboard are large enough for heads)
3. Let children use their imaginations
4. This project is especially good to use before an assembly program

6. PIPE CLEANER SCULPTURE

Materials: Pipe cleaners
Stapler
Cardboard

Procedure:

1. Explain to the children that their sculpture will be seen from all sides
2. Let children use their imaginations
3. Sculpture may be stapled to pieces of cardboard

7. PAPER PLATES AND AUTUMN LEAVES

Materials: Paper plates
Paste
Paint

Procedure:

1. Take a walk and have class collect leaves, twigs, dried weeds, small stones, pieces of wood, etc.
2. Paint plates with autumn colors
3. Paste objects on plates
4. Punch hole in plates to hang

8. PAPER MOSAICS

Materials: Construction paper
Magazines
Cardboard
Scissors
Glue

- Procedure:
1. Cut paper or cardboard into small shapes (primary teachers should do this on the paper cutter)
 2. Have the pupils arrange pieces into a design or picture being sure to cover the entire paper
 3. Glue pieces onto the paper
 4. Paint or crayons may be added

9. GEOMETRIC SHAPES

Materials: Colored paper
Magazines
Scissors
Paste

- Procedure:
1. This project would be good to go along with a math unit on geometric shapes
 2. Using triangles, squares, rectangles, and circles, make a picture or design cutting out shapes and glueing on paper
 3. These shapes can be found in pictures from magazines and can be used for a montage

10. MASKS - LARGE PAPER BAGS

Materials: One bag per student
Construction paper
Crepe paper
Paint
Crayons
Tape, glue, or stapler
Scissors

- Procedure:
1. Have pupils work in pairs at first; one puts the bag on his head and the other draws the eyes, nose and mouth for the other one
 2. Slots may be cut, for the shoulders of bag are to fit all the way down on the head

3. Heads may be decorated with paper and paint to create hats, hair, horns, etc.

11. MASKS - PAPER PLATES AND PAPIER-MACHE

Materials: Paper plates
Newspaper
Liquid starch or any other papier-mache material
String
Paint
Scrap material - cardboard rolls, paper cups,
ice cream cups, wooden spoons
Glue

- Procedure:**
1. Have children cut eyes, noses, and mouths in paper plates
 2. Let them choose scrap materials to make long noses, horns, ears, etc. and attach them to the plates with tape
 3. Cover the entire mask with papier-mache (liquid starch and water will be easier to work with but will make the masks rigid and they usually will not last through one assembly program; white glue and water is harder to work with but will make the masks flexible and almost permanent; commercial papier-mache pulp is not suitable for this project)
 4. Paint when dry
 5. Put holes in each side and tie string to hold the mask on the head

12. PAPER BEADS

Materials: Colored magazine pages
Glue, wheat paste, paste, or liquid starch
String or thread and
Large needle
Toothpicks
Liquitex or varnish

- Procedure:**
1. Cut colored magazine pages into $1\frac{1}{2}$ " x $2\frac{1}{2}$ " diamond shapes
 2. Roll these shapes around a toothpick, glueing the tips
 3. Beads can be left as are or colored with tempera
 4. Thread beads on a string and spray with varnish

13. CARTOONING

Materials: Crayons
Pencils
Paper

Procedure:

1. Draw free forms or shapes
2. Study shapes to find an animal or human figure
3. Add features to the shapes
4. The same process may be used using numbers, letters, or free-form string designs

14. BREAD DOUGH "CLAY"

Materials: Two pieces of white bread per pupil
White glue (about two tablespoons per pupil)
Scissors
Paper clips
Toothpicks
String
Poster paint
Small brushes
Aluminum pie tins
Plastic bags

Procedure:

1. Remove the crust from the bread and tear into small pieces
2. Add glue, a little at a time, and work mixture into a consistency of dough
3. Wash hands
4. Paint can be either mixed with the dough or painted on afterward (if it is painted on it is more likely to flake off later)
5. Manipulate dough into desired shapes and place on plastic bags to dry
6. Holes should be made when the dough is wet
7. Can be used for beads, pendants, rings, wall placques, etc.

15. EGG CARTONS

Materials: Egg cartons (1 or 2 per child)
Glue
Scissors
Paint

- Procedure:**
1. Let students go on their own initiative and create animals of their own design
 2. Only help those children who are not working, this is a great project to further creativity

Suggestions: Halloween- witches, black cats
Thanksgiving- turkeys, Pilgrims
Christmas- Santa Claus, reindeer, wreaths, trees,
tree decorations, candle holders
Easter- rabbits, chickens
Anytime- caterpillars, dogs, horses

16. YARN BUBBLES

Materials: Wallpaper paste, flour and water paste, liquid starch, or Elmers glue and water
Yarn (about 5 yards per student)
Balloons (one per student)
String

- Procedure:**
1. Wet yarn in paste mixture until thoroughly soaked
 2. Blow up balloon, knot the end and tie on a long piece of string
 3. Wrap the yarn around the balloon until it is about half covered
 4. Let this hang until the yarn is dry
 5. When yarn is dry, puncture the balloon and carefully remove it
 6. The yarn will maintain the shape of the balloon

17. YARN RUG

Materials: Cardboard strips (corrugated is best, cut in 4" x 12" strips, about 8 strips per child)
Yarn
Large darning needles

- Procedure:**
1. Wrap yarn around each strip of cardboard twice
 2. When all strips are covered, use the darning needles to sew the strips loosely together
 3. Pieces of rubber can be attached to the underside of the rug to prevent it from slipping

18. HOT PLATE

Materials: Yarn (about 2½ yards per child)
Needle and thread

- Procedure:
1. Each child needs 9 strands of yarn
 2. Knot all the ends together and divide the yarn into 3 groups of 3 strands each
 3. Braid the yarn to the end and tie the end in a knot
 4. Coil the braid into a flat round shape sewing it into place with a needle and thread

19. YARN HAT

Materials: Yarn (about 24 strands, 18" to 24" long)
Elastic bands (one per child to fit around each head)

- Procedure:
1. Knot lengths of yarn in middle, knot all lengths together to make one knot
 2. Tie ends of yarn to the elastic band to form a hat

20. PICTURE FRAME

Materials: Cardboard
Yarn

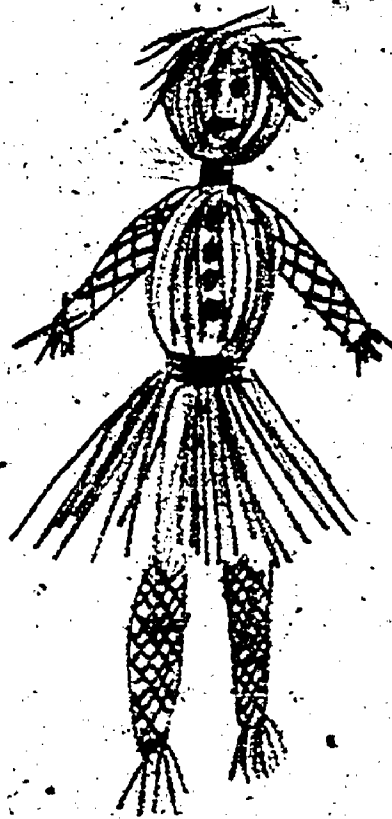
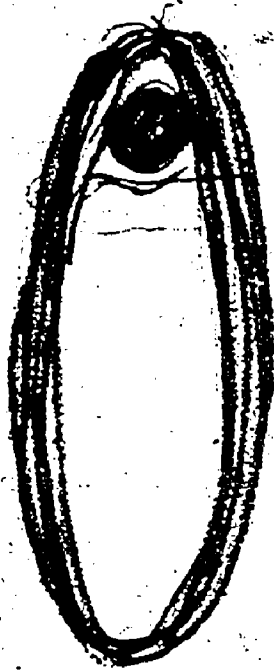
- Procedure:
1. To make a picture frame that is oval or round in shape, cut out the shape of the picture to be exposed
 2. This will be the inner shape of the frame
 3. Make the frame 1" wider than the inner shape, cut this out and trace its outline three times on cardboard
 4. Cut and glue these 3 cardboard frames together
 5. Starting at the top of the shaped frame wind a layer of yarn closely around the frame to cover the cardboard; do this twice
 6. Finish by knotting a double loop of yarn at the top for hanging

7. Before framing your picture, trim its corners and with a needle and thread, tack the picture to the back of the frame by stitching down the 4 corners

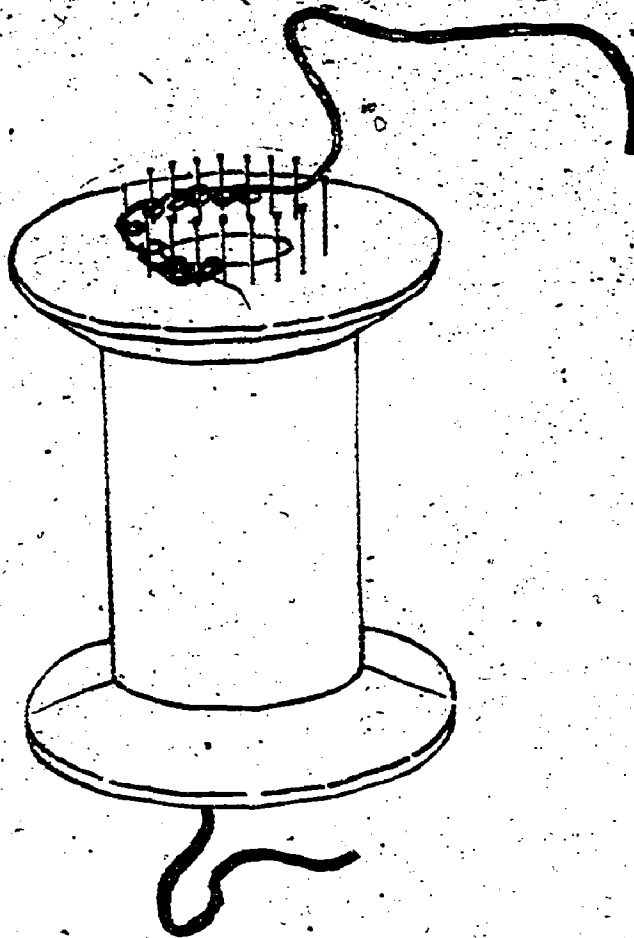
21. BOY AND GIRL DOLLS

Materials: One skein of yard per doll

- Procedure:
1. Open the skein and tie the yarn together at the top
 2. Insert a small ball of yarn for the head under the knot and tie the yarn for the neck
 3. Cut the loop at the bottom and take a group of pieces on each side, braid them for the arms
 4. Cut the braided pieces arm length
 5. Tie waist
 6. For a girl doll, cut rest of pieces skirt length except enough pieces for legs
 7. For boy dolls, start braiding legs about 1" from the waist
 8. Tie ends of arms and legs to make hands and feet



9. Details can be added with thread and buttons



SPOOL LOOM

Materials:

Large empty thread spool (about $2\frac{1}{2}$ inches long)
Yarn
A steel or aluminum knitting needle or a nail,
small brads

Procedure:

1. Hammer the brads into one end of the spool evenly around the hole
2. Slant the brads slightly toward toward the outside edge
3. Thread a long yarn needle and pass it through the hole in the spool
4. Pull the yarn through so that a tail of about 6" is exposed below the spool
5. Loop the yarn around each brad and keep it tight
6. Wind the yarn around the outside of the brads

7. Using the knitting needle, slip the loop up and over the strand and off the brad
8. Continue this process
9. Each time this is done a stitch is made
10. To cast off the stitches, break off the yarn, leaving about a 6" tail
11. Thread a yarn needles (blunt tapestry needle) with the tail
12. Pull yarn through next stitch and slip stitch off the brads
13. The knitted rope which is produced can be used to make pot holders, beanies, place mats, and rugs

BOX LOOM

Supply an assortment of boxes, such as cigar, cheese, apple, and other types. When a loom is made from a large box, such as a fruit box, a narrow piece of wood must be sawed off both sides to make them lower than the sides of the box. Sandpaper the edges. Lowered sides on the box make weaving easier for the children. Nail the brads equal distance apart on the two narrow ends. String the loom in the same manner as the simple wooden loom.

SIMPLE WOODEN LOOM

Materials:

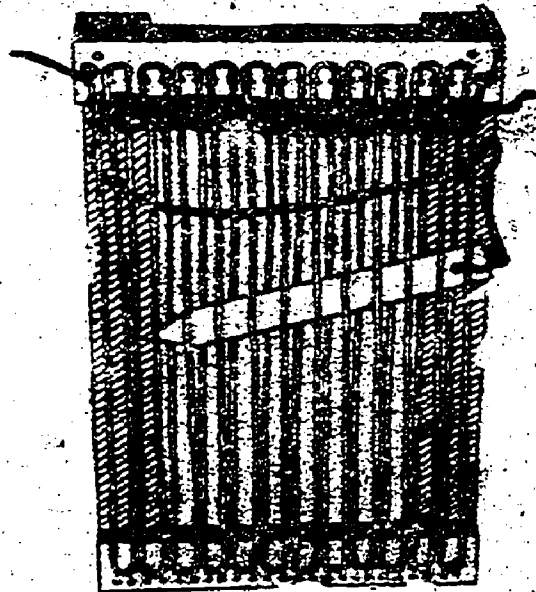
- Two short strips of soft pine (1" x 2") sanded
- Two longer wooden strips
- Brads (1" long)
- Carpet warp or string
- Yarn
- Cardboard shuttle

Procedure:

1. The two short strips are nailed on top of the two longer wooden strips to form a frame of suitable size
2. Brads should be nailed on the short ends evenly at whatever distance desired
3. Start at any corner with the carpet warp or string and tie it to the corner nail
4. Stretch to the opposite side and go around the backs of two nails, bring it back, and loop it behind the second and third nails, then back to the opposite side and so on until the stringing of the loom is completed

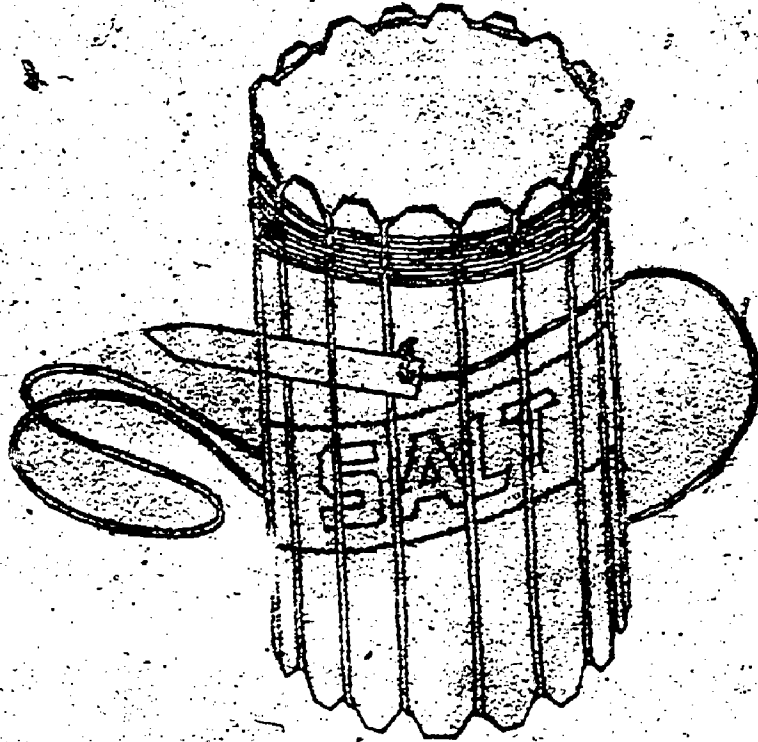
SIMPLE WOODEN LOOM - continued

5. The yarn for the weft lengths can be precut to lengths 4 inches longer than the width of the loom (this is recommended for younger children)
6. Or a cardboard shuttle can be made and the long piece of yarn tied through the eye
7. The weft is woven until the length is used up and the process is repeated to conclusion
8. Picture frames, wooden rulers, and wooden boards can also be used for this type of loom



OATMEAL OR SALT BOX LOOM

Mark off notches at the top and bottom of the box as for a flat cardboard purse loom. A few minutes of experimenting will easily show how to string the loom.



CONSTRUCTION PAPER STRIP LOOM

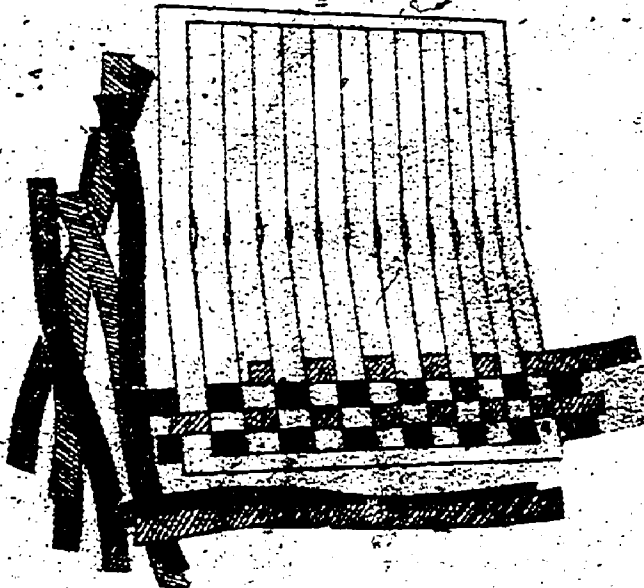
Materials: Construction paper
Paste
Scissors

Procedure:

1. Fold in half a 9x12 inch or larger sheet of construction paper, depending on grade level
2. Cut 1", or $\frac{1}{2}$ ", or $\frac{1}{4}$ " wide slits.
3. Cut strips of paper any width desired and weave over and under

CONSTRUCTION PAPER STRIP LOOM - continued

4. Can use other kinds of paper or ribbons
5. Paste the ends



CARDBOARD PURSE LOOM

This is made the same way as the simple rectangular cardboard loom, except the warp thread is strung on both sides of the cardboard. Always have an uneven number of warp threads.

RECTANGULAR CARDBOARD LOOM

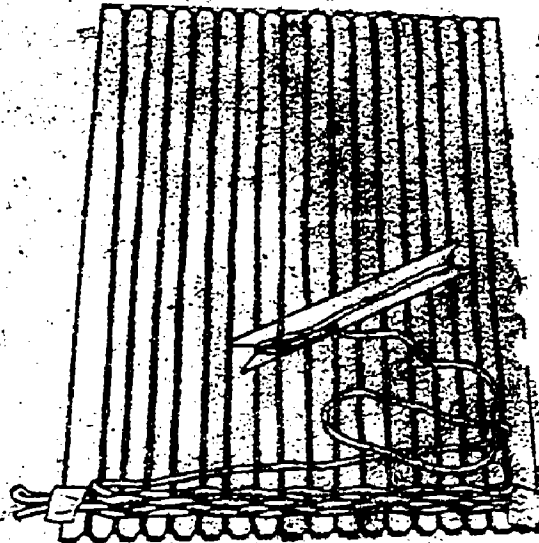
Materials: Heavy piece of cardboard (9x12" or larger)
Yarn
Shuttle (piece of cardboard or wooden ice cream stick)

Procedure:

1. Notch the two 9" sides half an inch for younger children and a quarter of an inch for upper grade children

RECTANGULAR CARDBOARD LOOM - continued

2. String the warp threads back and forth the length of the cardboard and under the notches
3. Now the loom is ready to add the horizontal threads called the woof or the weft
4. The weft yarn is wound around the shuttle
5. The weft threads go over and under the warp threads the full width of the loom
6. Help the children to weave evenly; each row of weft must be evenly placed before the next row is started; show the importance of even tension and straight edges
7. A piece of masking tape placed over the warp threads will help hold them in that general area; as the weaving progresses, the masking tape may be moved to another place
8. When the piece is finished, remove it from the loom and overcast the two ends so that the weaving will not ravel out
9. A purse may be made from this type of woven piece by folding it over; sew the ends together and add a zipper to the other side; several of these rectangles woven together may be sewed together for an afghan, doll blankets, or a rug for a doll house



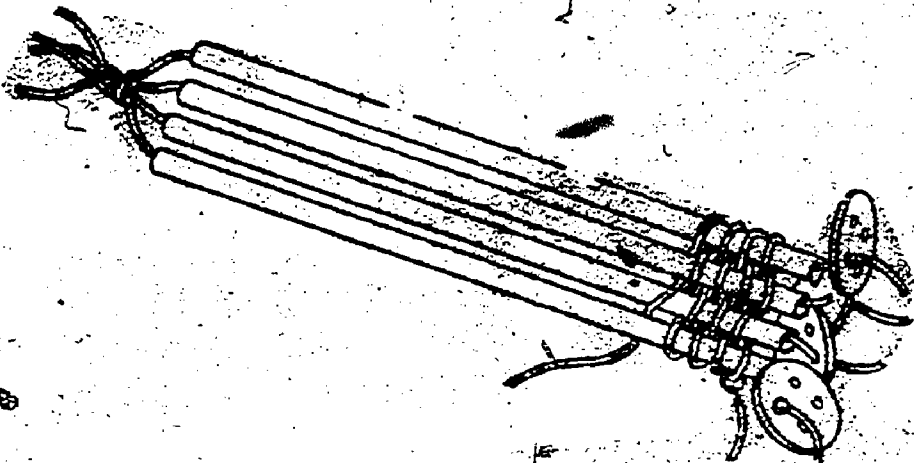
SODA STRAW LOOM

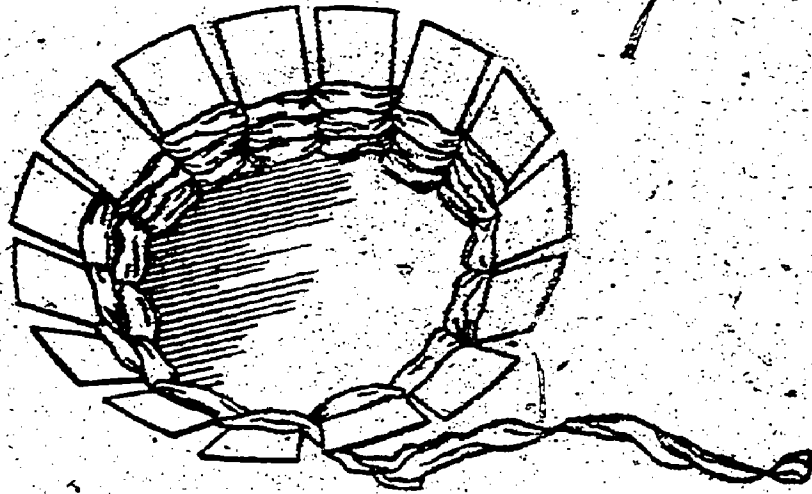
Materials:

Soda straws
Large beads or buttons
Yarn

Procedure:

1. Cut the soda straws into 4" lengths
 2. Measure four lengths of carpet warp, string, or cotton filler and allow some extra for fringe and shrinkage
 3. Tie a large knot at the end of each warp thread with a large bead or button to prevent it from pulling through the straw
 4. Push one warp through each of the pieces of straw
 5. Tie the four warps at the other end together into a knot
 6. Tie one end of the weaving material (the weft) to an outside straw, and carry the weft over and under alternating the straws
 7. When another length of weft is needed, simply tie it onto the old one and arrange the weaving so that these knots are all on the underside of the work
 8. Keep pushing the woven material down onto the length of the warp, it should pack down firmly and entirely cover the warp
 9. Finish off with knotting for a fringe or stitching on the sewing machine
- There are many ways these narrow bands can be used: sewed together for purses, belts, hair bands, or head bands





ROUND CARDBOARD LOOM

Materials:

Cardboard
Crepe paper and/or yarn

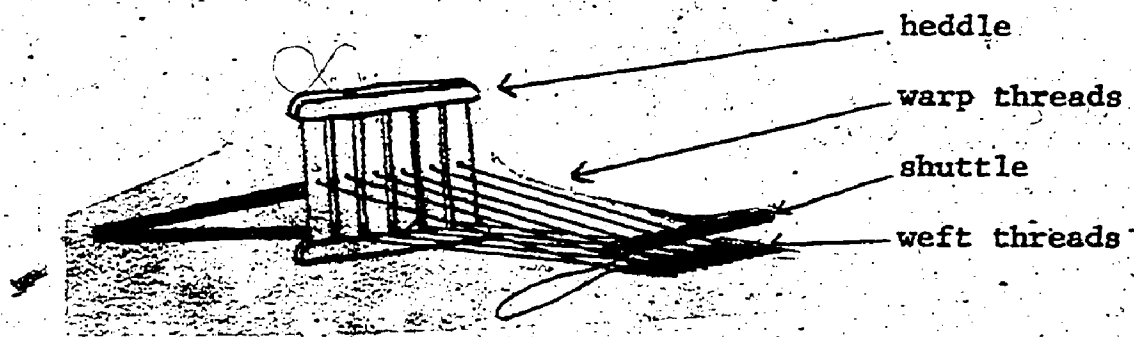
Procedure:

1. On the cardboard draw two circles: one about 2" greater in diameter than the finished bowl should be, the other to be the bottom
2. Divide the circumference into equal parts for two-strand weaving, or divide it into unequal number of parts for one-strand weaving (one-strand weaving is easier for the lower grade children)
3. Do not let the divisions be more than $1\frac{1}{2}$ " wide at the outer edge
4. Connect the division to the center by lines
5. Make a dot $\frac{1}{2}$ " to each side of the division line where it is cut by the inner circle; this forms triangular points toward the center; cut these points away
6. If a basket or bowl is to be woven, bend the resulting spokes up to the inner circle
7. Weaving is done with 1" wide strips of crepe paper that have been twisted by hand, or with yarn

ROUND CARDBOARD LOOM - continued

8. For weaving with an uneven number of spokes, paste one end of the twisted crepe paper to the bottom of one of the spokes (at the inner circle); proceed to weave the strand under and over the spokes.
9. When the strand is used up, paste the end of a new strand to the last one and roll the patched ends between the fingers and proceed to weave to the very top; paste the end; a little of the cardboard spokes will show.
10. For double strand weaving with the even number of spokes, slip the middle of one of the strands around a spoke and bring the bottom strand up under the first spoke; take the original top end of the strand down over the first spoke and up under the second spoke; proceed, always taking the back strand down under and up before you let loose of it; this is important for even weaving.
11. For binding, use three strands of the same twisted crepe paper and braid it into a loose flat braid.
12. Cover exposed bottom of the bowl with wheat paste or school paste; lay one end down in the paste against the weaving and coil it around in smaller circles till the bottom is covered; repeat this on the center part on the opposite side.
13. Put paste on the exposed cardboard at the top of the bowl and place the braid on the inside edge, letting it extend a little above the edge and continue with it entirely around the bowl; also repeat this on the outer top edge of the bowl; paste the ends.
14. Add handles and you have baskets; these can be varnished.

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BELT LOOM (Hungarian Heddle Loom).

Materials: Popsicle sticks (9 or 11 per loom)
 or tongue depressors
 Cardboard
 Yarn

Procedure:

1. Drill a hole in the center of each length-wise stick which will hold every other warp thread.
2. Glue and tie two sticks to each end (top and bottom) to hold the stick in place; the spaces between the sticks are for every other warp thread; this makes a heddle device which allows the alternate warp thread to slide up and down in the long grooves as one weaves.
3. One end of the warp is fastened to the weavers belt and the other to a door-knob, chair, or nail.
4. Insert three pieces of cardboard (1"x6") into the warp threads (at the end nearest the weaver) by lifting and lowering the loom.
5. Begin weaving with the yarn you have wrapped around the cardboard shuttle.
6. Push the loom down to pass the shuttle through from right to left and lift it to pass the shuttle from left to right.
7. Pack the woven threads compactly with a wide toothed comb; this is called a "beater".
8. There are various ways to finish the belt; knotting the ends of the warp threads together locks in the weft threads so they will not unravel; weft threads can be knotted into two of the warp threads to hold it secure; extra

BELT LOOM - continued

length can be left as a fringe and a simple knot tied to secure the belt; an alternate method is to cut off the fringe, turn under the ends, and sew them down tightly; a loop of yarn and a large wooden button will make the fastening

REED WEAVING

Materials:

Reeds
Round wooden base
Reed spokes

Procedure:

1. Before starting, the reeds must be soaked in water; to start a basket, a round wooden base with an odd number of holes into which reed spokes are inserted may be used
2. These spokes can be cut any length desired, depending on the size and height the basket is to be
3. Let spokes extend $2\frac{1}{2}$ " below the base and finish by weaving in such a way as to lock the ends
4. The damp round reed is woven in the same manner as simple weaving, over and under
5. The top edges can be finished by locking the ends; handles may be attached

BRAIDED MATERIAL WEAVING

Materials:

Cotton, silk, wool, or nylon materials
(torn or cut into strips)
Large upholstery needle
Coarse carpet warp

Procedure:

1. Take strips of material and sew them into longer lengths; they should be rolled into balls for easier handling
2. Take three strips and braid them; keep the tension as even as possible; a loose braid is preferred

BRAIDED MATERIAL WEAVING - cont'd

3. When enough braided lengths have been made, use a large upholstery needle and carpet warp; begin the sewing of the rug with the braid twisted into a small circle or oval and sew around and around until the braid gives out or the desired size is achieved.

MACRAME

Materials: Yarn, cord, twine, jute, or line

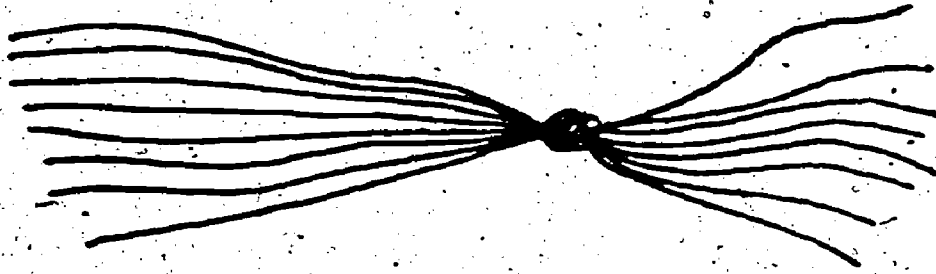
Procedure:

1. This project can be used to make headbands, belts, guitar straps, edging for curtains, dresses, jackets, etc.
2. To measure yarn, take length of article and use four times that length. (ex: belt to be 30" = each piece of yarn should be 120" long)
3. The width of the article is determined by how many rows of knots desired; one knot requires four lengths of yarn; the usual belt or headband will require about two rows of knots (depending upon the type of yarn or string used)
4. Lay all strings out on the floor and tie the entire group of strings in a knot in the middle (figure 1 next page)
5. Roll up one end in a ball and wrap with two rubber bands; this will make your work easier to handle (figure 2)
6. Wrap each string once around a pencil to separate them for knotting (figure 3); after knotting about five or six rows this can be removed
7. Make a row of knots (remember: each knot requires four strings), alternate each row: first row has two knots, second row has one knot, third row has two knots, fourth row has one knot, etc.
8. Working with each group of four strings, place the string on the far right of a group over the middle two, under the last (figure 4)
9. Take the last string and place it under the middle two and over the far right string (figure 5)
10. Pull the knot, sliding it up the middle two strings (figure 6)

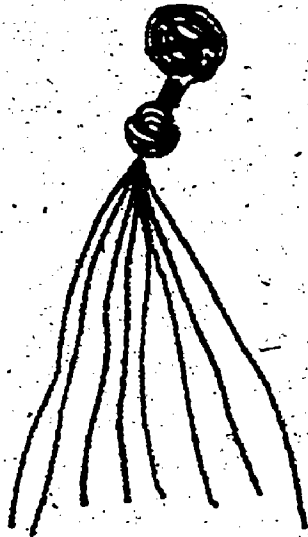
NOW YOU HAVE HALF A KNOT

11. To complete the knot, the process is repeated starting on the opposite side; the far left string is placed over the middle two strings and under the far right string (figure 7)

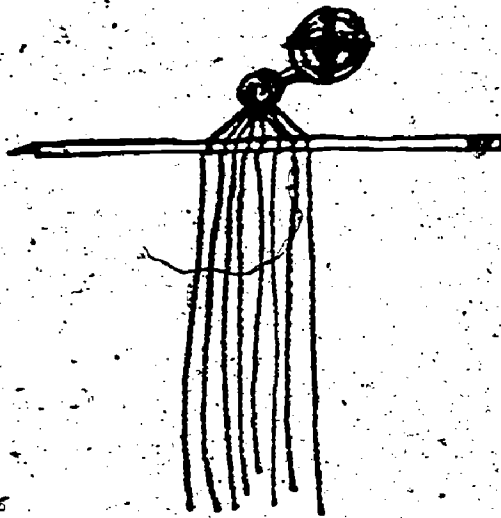
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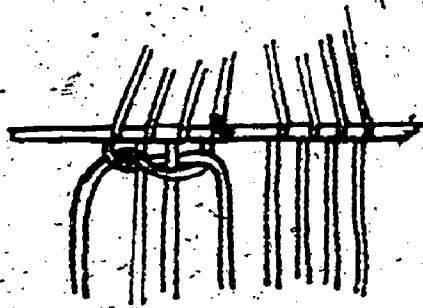
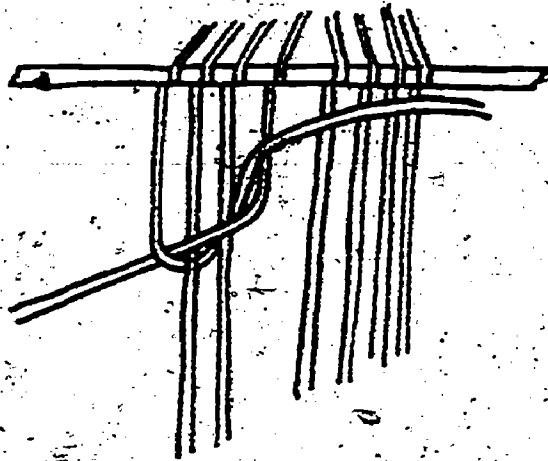
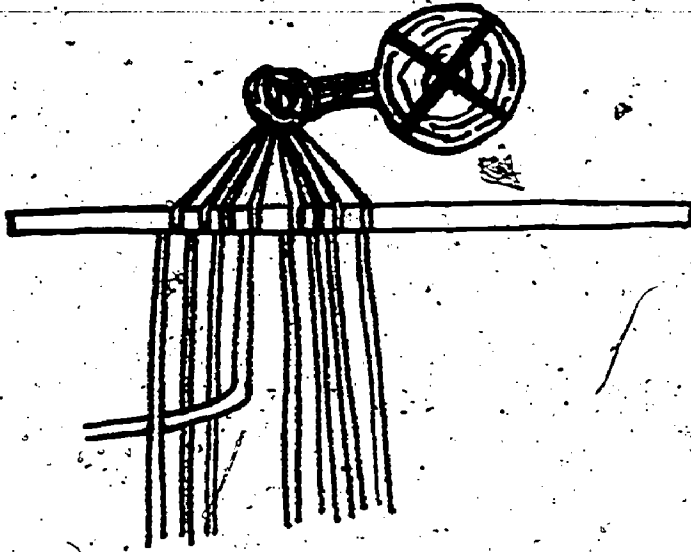


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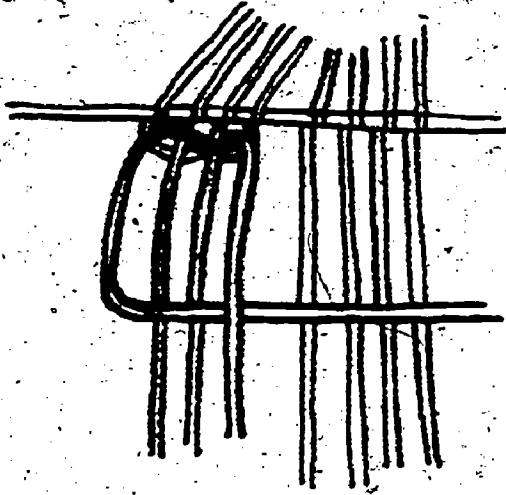


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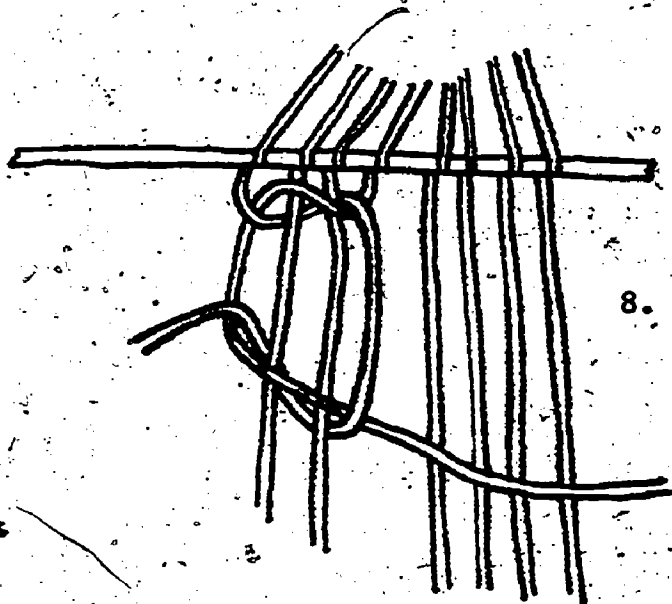
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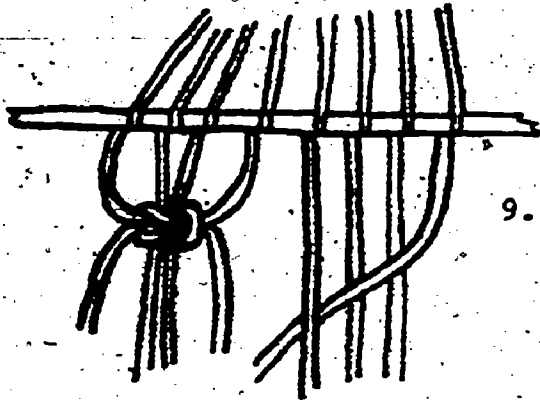
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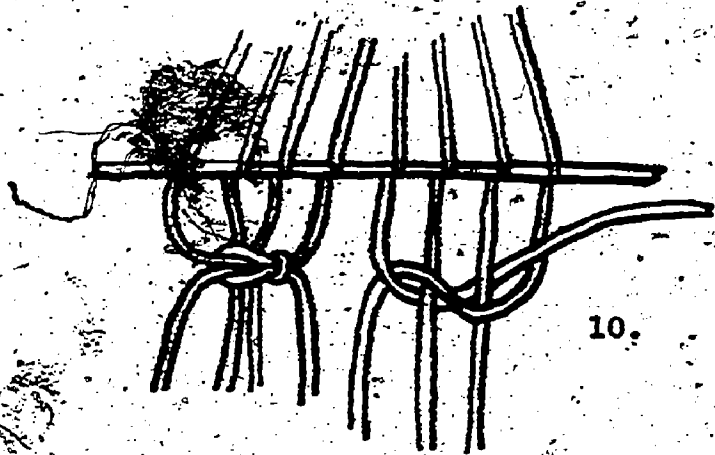
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8.



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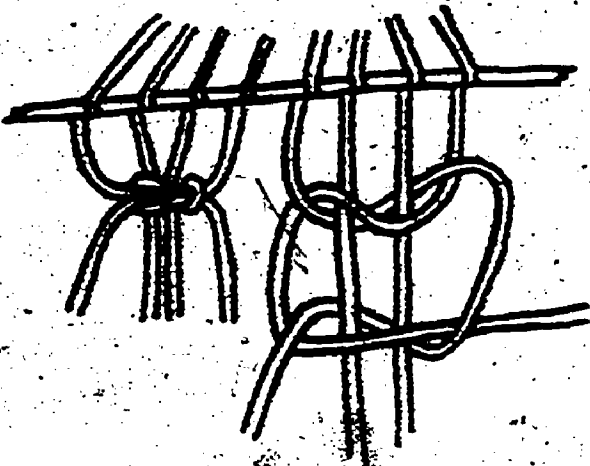


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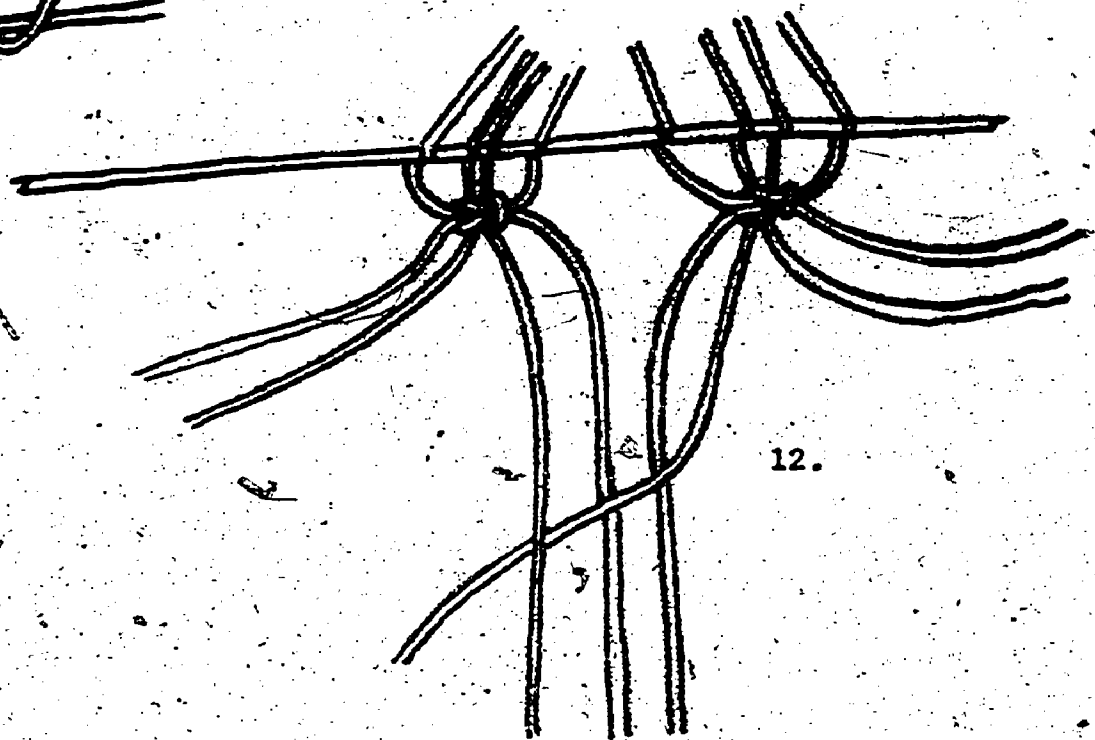
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MACRAME (continued)

12. The far right string is placed under the middle two and over the far left string (figure 8)
13. The knot is now complete, the same process is repeated with the remaining group or groups of four strings (figures 10 and 11)
14. When both knots are complete, the two outside strings on each side are separated and the four strings in the middle are knotted in the same manner described
15. Repeat this process until the proper length is achieved (figure 15)
16. When the end of the piece is reached, the strings can be tied either way shown in figure 16 and the extra string can be used as fringe

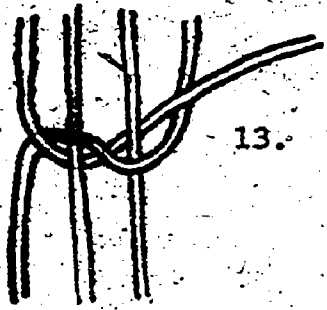


11.

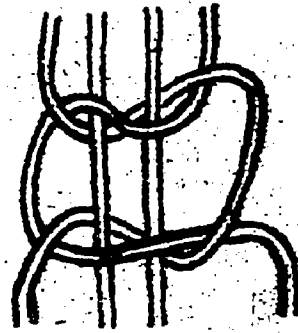


12.

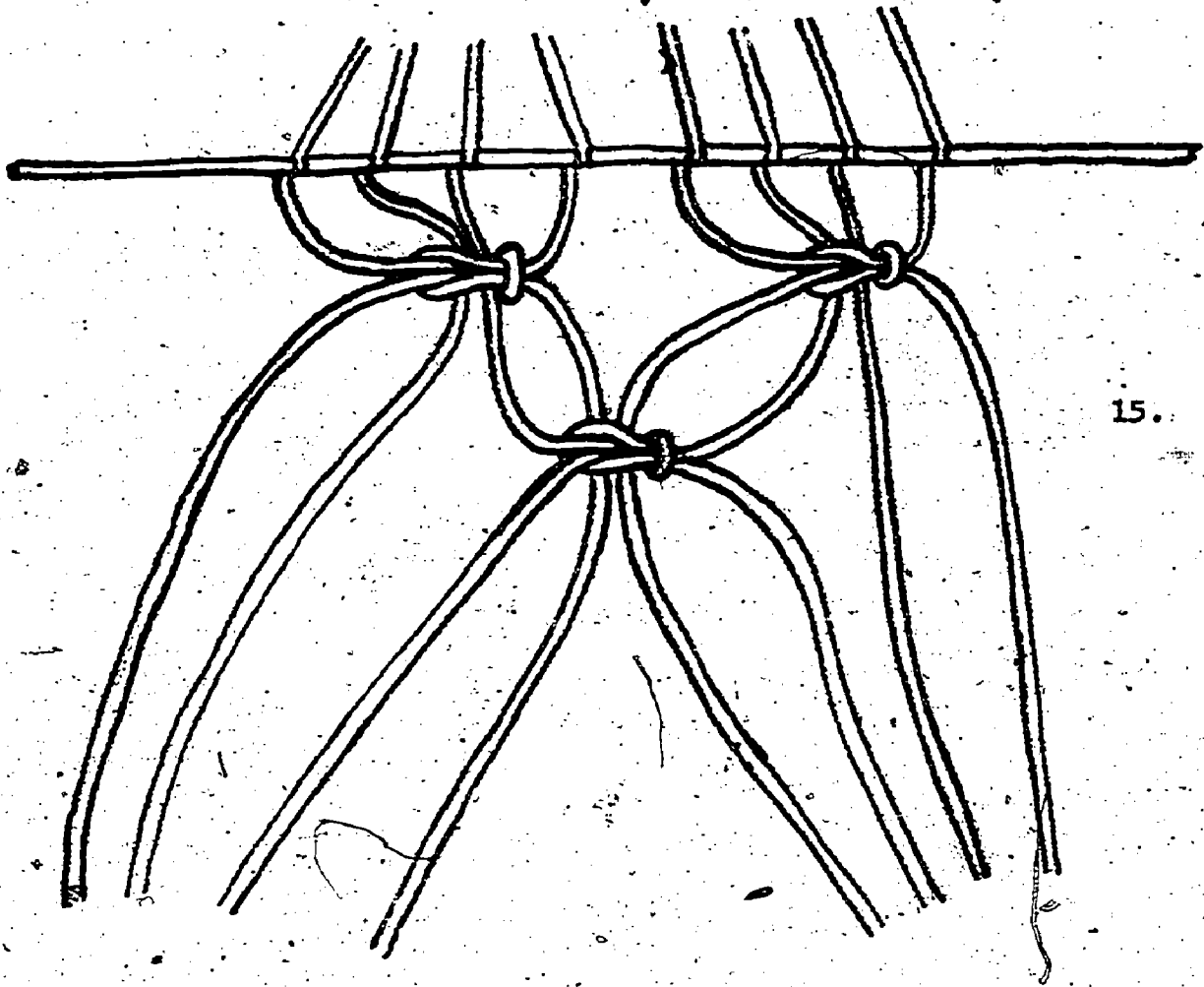
MACRAME (continued)



13.

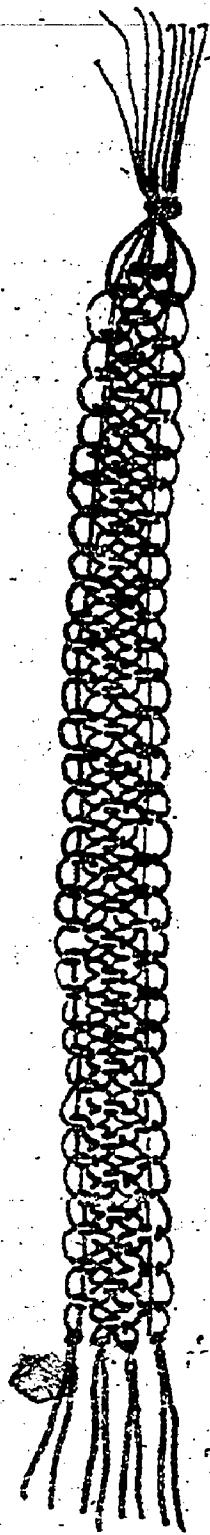


14.



15.

MACRAME (continued)



18.

MACRAME (continued)

Variations: ✓

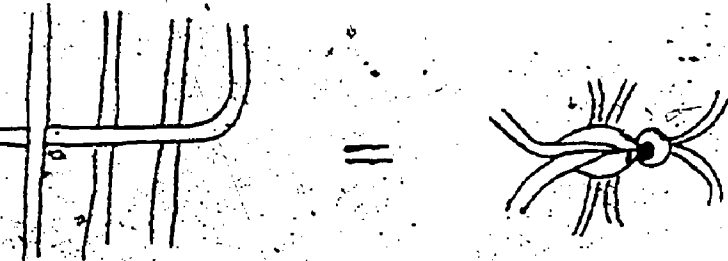


Figure 17

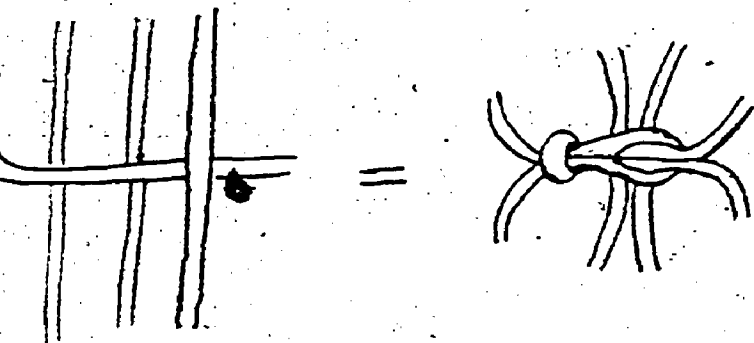


Figure 18

1. When knotting, the starting string in the group of four determines how the knot come out; in figure 17, the knot is started with the far right string; in figure 18, the knot is started with the far left string; when using two or more different colors of yarn for a belt, the design will come out looking even if the knot in figure 17 is used on the far right edge of the belt and the knot in figure 18 is used for the far left edge
2. Beads may be placed on the yarn and tied in with the knots or hung from the bottom edge of the belt
3. As in all weaving, tension should be kept the same throughout the piece or the width of the length will vary as to the tightness or looseness of the knots
4. Wall hangings may be made by starting the piece on a length of wood or metal for easy hanging
5. Variation can be made by just knotting the middle strings for a few inches and then knotting the outside strings, then alternating again as in figure 15; this will leave spaces in the piece; drift wood, material, or any number of things can be woven into these spaces for an interesting effect

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AMERICAN ARTIST

Watson-Guptill Pub. Co., 2160 Patterson St. Cincinnati, Ohio, 45214. Monthly except July-August. \$8.00.

An adult magazine. For senior high school students. Beautiful illustrations, some in color.

ARTIST, JR.

1346 Chapel St., New Haven, Conn., 06511. \$4.00.

The sub-title is "The Art Magazine for the Classroom." Since it is indexed in Subject Index to Children's Magazines, the school library should have a copy. It is an attractive 8 page magazine with illustrations in color and in black and white. Each issue is on some topic such as Holiday Greetings, Our Town, The Man Who Made Our Capitol, Color, etc.

ART NEWS

Newsweek, Inc., 444 Madison Ave., New York, N. Y., 10022. Monthly, September-June. \$11.50.

Articles about artists and movements; many illustrations complementing the text; international art news; competitions and scholarships; exhibits, etc.

ARTS AND ACTIVITIES

Publishers' Development Corp., 8150 N. Central Park Ave., Skokie, Ill. Monthly except July and August. \$7.00.

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Worcester, Mass. 01608. Monthly, September-June. \$7.00.

Drawing as well as crafts is emphasized. The magazine is slanted toward art education.

- * Our special thanks to the Bureau of Elementary Curriculum Development, New York State Education Department for Letting us model this art guide after the New York State Curriculum Guide.

GLOSSARY

- Abstract** A type of art derived from realism but stripped of most or all details, leaving only basic essentials by the use of lines, shapes, colors, and textured. It also may include art executed without reference to actual objects.
- Aesthetics (Esthetics)** Sensitivity to beauty and art. The philosophy of beauty.
- Analogous colors** Those colors situated next to each other on the color wheel.
- Applique** The application, sewing, or fastening of one material upon another for ornamentation.
- Architect** A person who designs, plans, and oversees the construction of buildings.
- Architecture** The art or science of building. A building or structure made by man.
- Area** Any flat surface.
- Artist** One who works with sensitivity in the arts such as painting, sculpture, graphics, ceramics, textiles, etc.
- Armature** A framework of wire or wood used inside a piece of sculpture to support it until the substance of which it is made hardens or becomes firm.
- Arrangement** An orderly design or array of shapes, lines, or objects.
- Asymmetrical** Having a visual balance not derived from symmetry. Containing dissimilar sizes, shapes, colors, etc., on the opposite sides of an axis or middle line.
- Background** Those portions or areas of a composition which are in back of the primary or dominant subject matter or design areas.

Balance	Equilibrium established by harmonious arrangements. The counterpoise of visual weights of values and shapes in a design.
Balsa wood	A lightweight wood used for carving and making models.
Bas-relief	Sculpture in which the figures project slightly from the background.
Batik	A process of covering certain areas of cloth with wax in a design before dipping the fabric into dye. When the wax is removed by a warm iron, the area covered by it is exposed, revealing the original color of the fabric.
Beater	Device with which each row of weaving is beaten to make the work firm and even.
Bisque	Clay hardened by exposure to high temperature and not glazed.
Block letters	Simple angular letters of uniform width frequently used for posters.
Block print	A design cut into any material such as linoleum or wood for reproduction purposes. Also a product of this process.
Brad	A thin, small-headed nail, often a finishing nail.
Brayer	A small roller, usually of rubber, for inking blocks, type, or plates by hand.
Burlap	A coarsely woven textured cloth, usually of jute.
Calligraphy	Beautiful handwriting or penmanship.
Capital letter	A large letter used at the beginning of a sentence or a proper name.
Caricature	A descriptive picture marked by ridiculous exaggeration or distortion.

Cartoon	A preliminary drawing for a painting. Also a sketchy picture or caricature.
Carving	The art or craft of making designs or sculpture by cutting or chiseling.
Casein	A heavy, water-soluble paint with a milky base.
Center of interest	The part of composition first to attract attention.
Ceramics	The term used for the art of molding, modeling, and firing objects in clay.
Charcoal	A type of pencil or stick used for drawing obtained by imperfect combustion of organic matter, usually wood.
Chasing	A method of ornamenting metal or other surfaces by engraving or indenting it.
Chiaroscuro	The distribution of lights and shades in a picture. A style of art using only light and dark.
Chip carving	Carving in soft woods by removing small chips of simple design.
Chisel	A cutting tool with a beveled edge used for cutting, engraving, or carving.
Chroma	The relative purity of a color. Color intensity.
Clay	A natural earthy material, plastic when wet, that is used for pottery or modeling.
Cloisonne	A method of enameling in which strips of metal or cloisons are soldered to a base, forming cells into which enamel is poured and fused.
Coil method	A process of making pottery by rolling long, thin, pieces of clay which are used to build up the sides of bowls or containers.

Collage	An arrangement of various materials pasted or fastened to a flat surface.
Color	A sensation evoked as a response to the stimulation of the eye and its attached nervous mechanisms by radiant energy of certain wave-lengths and intensities.
Complementary colors	Those colors opposite each other on the color wheel, which, when mixed together in equal amounts, produce a neutral tone.
Compose	To arrange into a composition.
Composition	The art of combining the parts of a work to produce a harmonious whole. The way in which areas of a drawing or painting relate to each other.
Cone	A mixture of clay and glaze with a pre-determined melting point used to time firings of ceramics in a kiln.
Connoisseur	One who is a competent critical judge of anything.
Construction	The three-dimensional arrangement of two or more forms into a built-up design using wire, wood, or a variety of materials.
Contour	An outline or border creating the illusion of mass in space.
Contrast	The opposition or unlikeness of things compared.
Cool colors	Those colors suggesting a sense of coolness such as green, blue, and violet.
Correlation	A relationship between things that are so connected one implies the other.
Crafts	The practical applied area of art involving skill in structuring or handicraft.
Creative	Using imagination to produce something new out of existing materials. Having the desire to create.

Crayon

A slender pigmented cylinder used for drawing or marking, usually made of wax.

Crayon-resist

The use of crayon drawing over which water color is applied. The wax binder in the crayon rejects the watercolor.

Cubism

A post-impressionistic movement in art, originating in France, circa 1904, in which objects in nature are reduced to geometric planes, facets, or passages, often overlapping or transparent. The subject matter is frequently difficult or impossible to identify. Picasso and Braque are credited with originating the movement.

Dadaism

A movement in art which devoted its energies and talent principally to destroying, ridiculing, and challenging those academic and traditional art forms which had grown stagnant and uncreative.

Design

The arrangement of component parts which make up a composition or other work of art. Also, the preliminary plan for same.

Diorama

A small, scenic representation with diminutive three-dimensional figures and landscape objects in front of a painted backdrop. Often enclosed in a small box, illuminated, and viewed from a small opening.

Dominance

A governing design principle or point of emphasis in a work of art, possessing ascendancy over other factors in the design.

Dowel

A wooden or metal rod, circular in cross section.

Drawing

The act of creating a picture by means of an arrangement of lines made with a marking instrument such as a pencil, crayon, charcoal, pen, or brush. Also, the picture so-created.

Dye	A stain or coloring agent which is of such fineness and solubility that it is used in solution to change the color of fibers and fabrics.
Easel	A framework used to support a painting surface at a convenient height and angle for the artist.
Elements of design	Line, form, space, color, texture. The essentials of all we see.
Elliptical	Pertaining to an ellipse or foreshortened (perspectively flattened) circle.
Emboss	To decorate or embellish the surface with a raised design.
Embroidery	The art of decorating a fabric, paper, or other pliable material with raised needlework designs, using colored or metallic threads and other fibers.
Emphasis	That portion or aspect of a design or picture in which the most intense expression is found.
Enamel	Prefired glass which is ground to a powder, applied to metal surfaces, and refired and fused to the surface by exposure to extreme heat in a kiln.
Encaustics	The art of painting with colored wax which is fused to the painting surface by exposure to heat.
Englobe	Variously colored clays which are thinned to a creamy consistency and used as a surface decorating slip (liquid clay) on ceramic objects.
Engraving	The process of scratching a line design into a metal plate with a stylus, rubbing ink into the lines, and printing the design on paper.
Esthetics	See Aesthetics
Etching	An engraving process in which the lines are eaten into the metal plate by an acid.

Experiment

In art, an exploratory, trial-and-error process by means of which one learns to manipulate line, color, forms, and space in various media to achieve desired results

Expressionism

A broadly varied term used to describe those art movements in which the artists are more concerned with the expression of emotion than with controlled design or representation.

Eye level

The inferred horizontal line which passes through the optical center of a picture.

Fabric

A cloth made by weaving, knitting, or compressing fibers together.

Facade

The front elevation of a building.

Fantasy

Unrestrained imagination and the results thereof. Fantasy has little or no basis in reality.

Fauvism

An art movement following impressionism in France, the participating artists of which had little in common with each other, except for the desire to paint freely and expressively, without the rules and restrictions of academic realism and impressionism.

Finger painting

A painting process in which a picture is formed by spreading a special water-soluble paint on a non-porous paper by means of the fingers, hands, and fore-arms.

Firing

The process of submitting clay work or enamels to extreme heat in a kiln.

Fixative

An alcohol-thinned shellac or plastic spray which is applied to charcoal, chalk, or pastel drawing to prevent rubbing off.

Flat color

Color which dries with a dull, non-glossy surface.

Foam glass

Ground glass, carbon, and sulphur, highly expanded by gaseous bubbles and baked in blocks. Designed as an insulating material, it serves ideally as an easily carved sculptural medium.

Foil

Thin sheets of metal.

Foreground

Those portions, areas, or design elements which occupy the forward areas in a composition and which comprise the primary pictorial or design interest in the composition.

Fore-shorten

To shorten by proportionately contracting in the directions of depth so that an illusion of projection or extension in space is obtained.

Form

One of the "elements of design" (apart from color, line, space, and texture) which is involved with solid masses and shapes, or their representations.

Free form

Form and shape which do not conform to specifically defined contours, amoeboid in nature, nongeometric, and generally non-representational.

Fresco

A painting technique in which water-soluble paint is applied to a moist plaster surface. The paint sinks into the plaster, creating a permanent chemical bond.

Frieze

In architecture, the horizontal band on the supporting walls below the roof. In Greek temples, the frieze is generally ornamented in sculptural relief of a story-telling sort.

Futurism

An art movement originating in Italy, comparatively recently. It is allied with cubism, but is more representational in nature. It is explosively emotional in its effort to express the dynamic changes in human living, both in the present and the projected future.

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Genre

Painting in which scenes and objects of everyday life are represented realistically.

Geometric

Pertaining to the basic regular shapes of mathematics, such as triangles, squares, circles, cubes, rectangles, cylinders.

Gesso

A chalky, white plaster which is often spread on wooden or masonite panels as a surface for painting.

Gesture drawing

A freely and quickly sketched drawing expressing deliberate motion.

Glaze

The thin glasslike surface generally found on pottery. Also a thin transparent layer of paint applied over another color to modify it.

Glossy

Smooth and shining, polished.

Gothic

Pertaining to the arts and architecture of medieval Europe, especially the church architecture of France and Germany.

Gouache

A method of painting with opaque white pigment and other colors in a water-soluble gum base.

Gouge

A chisel-like tool with a U- or V-shaped end.

Graphic art

Painting, drawing, engraving, and other arts involving the use of lines or strokes upon a flat surface.

Grayed colors

Colors which have been neutralized by the addition of complementary colors.

Greenware

Clay objects which have been air dried, but which have not yet been fired in a kiln.

Grog

Ceramic material which has been fired and ground into fine fragments. Grog may be mixed with moist clay to give added stability and to lessen shrinkage during firing.

Grout

A fine plasterlike cement used to fill in the spaces between the tesera in mosaics.

Gum arabic

A gum obtained generally from the mimosa tree. Solution made from gum arabic is used as a binder for pigments or ceramic glazes.

Harmony

A state of "visual rightness" and compatibility between colors or parts of a design or composition giving an effect of an esthetically pleasing whole.

Harness

The part of a loom comprising the needles, by means of which the warp threads are raised and depressed.

Heddle

Frame, cords, or wires with eyes, through which the warp threads are passed.

Highlight

A spot or area in a drawing or painting which is of the very lightest value.

Horizon line

A generally horizontal line in a picture where earth and sky meet.

Horizontal

Parallel to the horizon and at right angles to a vertical line.

Hue

That property by means of which we identify a color by name and distinguish it from other colors. For example; red, yellow, and blue are three different hues.

Icon

An image or representation, generally of a religious nature. In the Western church, an icon may be sculptural, but in the Eastern church it must always be a flat image.

Illumination

The adornment of a letter, manuscript page, or book with brilliant colors, gold, silver, elaborate flourishes, miniature designs, etc. An art developed by the monks of the medieval church.

Illustration

A picture designed to elucidate and decorate a story, poem, or other writing.

Impressionism

An art movement, essentially realistic, in which the painter attempts to depict the effects of a light as it is reflected from objects. Generally painted in out-of-door light impressionistic paintings have heavily textured brushstrokes, blurred outlines, pure colors, and an absence of brown or black pigments. Originated in France, circa 1870, as a reaction to academic realism.

Incising

Cutting a design or picture into a smooth surface such as clay, linoleum, wood, or soap, etc., using a sharp-pointed tool.

Intensity

The brilliance, brightness, or dullness of a color. When a hue is pure, its intensity is greatest. When it is mixed with black, white, or its complement, its intensity is lessened.

Italic

A style of type in which the characters slant upward to the right. Used to denote emphasis; importance, antithesis, etc.

Kiln

An oven (electric, gas, or woodfired) capable of reaching extremely high heats. In art, generally used to fire ceramic or enamelled objects.

Kinesthetic

Pertaining to the sense, which is felt in the large movement of the joints, muscles, and tendons. The free and somewhat unconscious drawing which is done by broad, rhythmic sweeps of the arm and hand.

Lacquer

A spirit varnish, such as shellac or, more properly, a natural varnish obtained in Japan and China from the sap of the sumac tree. It is clear, may be brightly polished, and is applied in multiple, thin coatings on wood or over painted surfaces.

Layout

The preliminary plan for the arrangement of the parts of a design or picture.

Lettering

The art of arranging letters to form words and phrases. It is a hand process done with pens, brushes, inks, etc. and should not be confused with printed letters.

Light

In drawing or painting, that part of a picture which represents those areas upon which light is supposed to fall, as opposed to those areas which represent shadows.

Line

A continuous mark made by a pencil, brush, crayon, etc., forming an element of a design as opposed to shading or color.

Linear design

A design, representational or abstract, composed of lines without solid areas of tone or color.

Linoleum

A floor covering composed of ground cork and resinous binders laid over a burlap backing. Used in art as a printing medium similar to the wood block.

Lithography

The art or process of drawing with a greasy medium on a smooth stone or metal surface, applying ink to the design in multiple copies.

Local color

That color which is intrinsic to the surface of an object as opposed to color reflected from other objects or sources of light.

Loom

A framework or machine for interweaving yarns or threads into a fabric.

Lowercase letters

Small letters as opposed to capital letters such as a, b, c, instead of A, B, C.

Macrame

An ancient art of knotting

Mallet

A hammer like tool generally made of wood, leather, or rubber, rather than metal and having a large striking surface.

Manuscript

Words written or lettered by hand as opposed to printed words.

Marionette

A doll or puppet having free-moving joints and suspended from a network of strings by means of which the operator controls its movement.

Mass

In pictorial work, large areas of color, texture, or tone. In sculpture, generally large areas of solid medium as opposed to the open spaces between or around them.

Mat

A smooth or textured cardboard used to surround a picture with an unornamented area. An opening is cut in the mat slightly smaller than the picture, which is secured in place behind the mat.

Materials

Anything tangible that may be used in the creation of a two- or three-dimensional work.

Matte

Having a dull or nonglossy but generally uniformly colored surface.

Medium (media)

The paint, clay, pencils, chalks, or other materials by means of which the artist expresses his creative ideas in visual form.

Middle ground

That part of a painting or picture halfway between the spectator and the distance or background.

Mobile

A sculptural design with many parts which move in free but delicately balanced orbits, in relation to one another.

Model

- 1) To sculpture in a soft plastic material such as clay or wax
- 2) A person who poses for an artist

Modeling	1) Sculpturing with a soft plastic material such as clay or wax 2) Posing for an artist.
Mold	A concavity in which anything is shaped or cast
Monochromatic	Having only one color
Monogram	A character or cipher composed of two or more single letters interwoven and combined to form a single character, commonly used to symbolize a person or an idea
Monoprint	A design in inks or other moist or oily pigments which is intended to be reproduced only once by being pressed together with a single sheet of paper.
Montage	A picture composed of many heterogeneous pieces of other pictures, printed matter, or textures. The pieces are glued to a background in overlapping fashion to create a newly unified design.
Mood	A state of mind, feeling, or heart as reflected in a work or art through color, line, form, texture, and space.
Mosaic	A picture composed of many small separate bits of clay, glass, marble, paper, etc., which are cemented to a background.
Motif	A salient design feature in a work of art which characterizes the work and which may occur once or repeatedly.
Mural	A picture, generally a large one, designed to decorate a wall.
Naturalistic	Adhering closely to or copying forms as they appear in nature.
Negative space	The unoccupied but definitely circumscribed and delimited space existing between and among masses and shapes in a composition. For example, the hole which remains after a shape has been cut from a piece of paper.

Neutral colors

Colors which have been grayed by the addition of their complements.

Nonobjective

Pertaining to a picture or sculpture which neither derives from nor proposes to represent an object found in nature.

Nib

The pointed, flat, or rounded writing surfaces of a pen.

Oblique

Slanting: neither horizontal nor vertical.

Oblong

A rectangle with unequal adjacent sides.

Opaque

Impervious to light, not transparent.

Order

In architecture, a style of building, especially of columns and capital, such as the Doric, Ionic, and Corinthian orders of Greek architecture.

Overglaze

- 1) Coloring which is applied over ceramic glaze
- 2) Thin layers of transparent paint applied over previously applied paint to modify it.

Overlap

To extend over and beyond, as one object extending over another.

Palette

- 1) A thin board with a thumbhole at one end for holding it, on which an artist lays and mixes his colors
- 2) The set or range of colors used by an artist.

Palette Knife

A small knife, used for applying paint thickly to a painting.

Papier-mache

A sculptural medium composed of wet, mashed paper with a paste binder, the consistency of oatmeal when wet, but hard and rigid when dry.

Paraffin

An inflammable, easily melted, wax derived from petroleum. Used as both a carving and modeling medium.

Parallel	Existing side by side at an equal distance, but never meeting no matter how far extended.
Pastel color	Color which is high in value (light) and low in intensity (soft).
Pastels	Highly refined and ground pigments pressed into chalklike sticks for drawing.
Pattern	<ol style="list-style-type: none"> 1) Anything designed as a guide or model for making identical replicas of an original form 2) The effect produced by the repetition of many small and similar design motifs on a surface.
Period	A length of time in the history of art which is characterized by a particular style of drawing, painting, sculpture, or architecture.
Perspective	The art and science of representing three-dimensional surface by means of a complex network of straight lines and vanishing points.
Photography	The process of making pictures by exposing light-sensitive emulsions to light.
Pictorial	Having the qualities of a picture and generally, though not necessarily, representing objects in nature.
Pigment	Substance which imparts color to paint, inks, chalks, crayons, etc.
Pinch pot	A pot which is made from a lump of clay; the lump is worked with the fingers until a pot is formed.
Plane	A flat surface.
Plastic	<ol style="list-style-type: none"> 1) A material capable of being formed, molded or modeled, such as clay, plaster, or wax.

Plastic (con't.)	<p>2) Substances, both organic and inorganic, which are manmade and capable of being formed and molded.</p> <p>3) Description of those sculptural techniques employing plastic materials.</p>
Portrait	A representation of a person, generally of the face.
Positive space	The occupied space within an area made by space.
Poster	A placard, generally decorative or pictorial, intended to convey a message or further a cause or point of view. A limited number of words are used in conjunction with the pictorial aspects of the composition.
Post-impressionism	That period of art immediately following impressionism which built upon the foundations of these earlier movements, adding new dimensions of individuality and personal expression.
Potter's wheel	A mechanism used for spinning clay pots. A horizontal disk revolves on a vertical spindle, turning the clay as the potter's hands shape the pot.
Pottery	Ware made of clay and fired in a ceramic kiln. In a narrow sense, the coarser vessels called earthenware as opposed to the finer ware called porcelain.
Primary colors	Those colors in terms of which all other colors may be described or from which all other colors may be evoked by mixture. In painting, red, yellow, and blue are the primary colors.
Print	A design resulting from the process of inking the surface of a plate upon which a design has been incised or built up and then transferred to paper, cloth, or any other material.
Printing	The process by means of which a design, letter, or picture is stamped upon a paper, cloth, or other surface.

Proportion

The relationship of one part to another or to the whole.

Puppet

A doll-like figure, created of various kinds of materials with jointed limbs, moved by hand or stick or strings.

Quill

A feather, as of a goose, formed into a pen for writing.

Rasp

A coarse form of file, having separate pointlike teeth.

Realism

The painting tradition (in any society or time) in which the artist strives to achieve a naturalistic representation of the external appearance of his subject matter.

Reed

A plant with a fibrous and pliant stem, used used for such crafts as basketry and weaving. Also, in a loom, the series of parallel strips that force the weft up to the web and separate the threads of the warp.

Relief

In sculpture, figures which project from a background to which they are attached. Cut deeply, they are high relief; cut in a shallow fashion, they are low relief or bas relief; sunken below the surface of the background, they are intaglio.

Repousse

Process of decorating metal by beating it into relief from the back, raising the design in low relief on the front.

Rhythm

An element of design that establishes a dynamic relationship and interdependence of parts of the artistic whole through regular recurrence of elements of motion.

Romantic

A recurring thread or tradition in art characterized by freedom of treatment, adventurous subject matter, dynamic compositional rhythms, resistance to "classical order".

Sand casting	The process of forming plaster, molten metal, concrete, etc., in a mold or depression made in sand.
Saturation	A property of color used to describe the intensity or brilliance of a hue.
Scale	Relative dimensions without difference in proportion of parts, especially proportion in dimensions between a drawing, map, or model and the original thing represented.
Scoring	Marking lines on paper with the pressure of objects such as nailfiles, backs of scissors, etc., with the purpose of using these lines as guides for folding the paper.
Scratchboard	A cardboard covered with two or more coats of crayon. In scratching through the top layer, lines of the underlying colors are revealed.
Sculpture	Carving, modeling, or structuring in a variety of media to achieve a three-dimensional design. It may be representational or abstract.
Secondary colors	Those colors obtained by mixing two primary colors. The secondary colors are orange, green, and purple.
Serif	A small line used to finish off a main stroke of a letter at the top and bottom for decorativeness.
Sgraffito	Decoration, generally on pottery, produced by scratching lines through a thin outer layer of colored clay, revealing the basic clay of the pot.
Shade	A deepened tone of a color achieved by the addition of black.
Shed	Opening formed in warp, through which the shuttle is passed, when some of the warp threads are raised and the rest lowered.

Shed stick	Flat piece of wood or cardboard inserted to keep the shed open while the shuttle moves across the warp; the stick can be used as a beater.
Shellac	A varnish made of purified lac resins, used mainly to protect wooden surfaces.
Shuttle	The thread carrier on a loom.
Silhouette	The flat shape and contour of an object.
Silk screening	The reproductive process wherein paint or ink is forced by the pressure of a squeegee through a stencil adhered to a stretched silk cloth. Also called serigraphy.
Sketch	A preliminary drawing characterized by its casual and free qualities.
Slip	Clay in liquid form, used in ceramics for casting, binding, or decorating.
Space	The intervals, unoccupied areas, and voids between and among objects, and positive shapes in a composition.
Spatial relationships	The relationships between negative and positive areas in a design.
Spatter painting	A form of stencil painting in which droplets of paint are spattered from a toothbrush through or around a stencil.
Sponge painting	Painting done by dipping sponges of any size or shape into paint and applying the paint to the paper directly with the sponge.
Squeegee	A hard piece of rubber set in a wooden brace and used to force ink or paint through a silk-screen stencil.
Stabile	A sculptural construction, generally abstract, which remains stationary.
Statue	A sculptural representation of a living being.

Stencil

A thin sheet of paper, film, or metal, etc., cut in such a way as to reproduce a design when paint is rubbed over, around, or through it.

Still life

An arrangement of inanimate objects such as flowers, fruit, bottles, etc. Also, the drawings and paintings of the same.

Stipple

To paint, engrave, or draw by means of dots or small dents.

Stitchery

Designing in a fabric or other pliant material with thread and needle; embroidery.

Stoneware

Pottery fired to the high temperature of porcelain, but having a coarser texture.

Straw blowing

Process of spreading ink or paint over a surface to form a design by blowing through a soda straw.

String pulling

A means of achieving a decorative design by placing a string saturated with paint or ink on a piece of paper, placing another paper on top, and pulling the string out while applying pressure to the paper.

Structural design

A three-dimensional design, generally nonfunctional. May be mobile or stable in nature.

Style

That which gives a distinctive or unique quality to art.

Subordination

The relegation of certain aspects of a design to a lower rank or importance compared with other aspects of the design.

Suprtimpose

To place, draw, paint, or design on top of something.

Surrealism

An art movement of comparatively recent origin in which the fantasies and unrealities of the subconscious are painted with a startling element of reality.

Symbol

A visible sign which stands for and evokes a mental image of another thing which may be visible or invisible.

Symmetric

Containing a balance derived from the placement of equal or similar weights, colors, forms, and lines on opposite sides of a certain line.

Tactile

Pertaining to the sense of touch.

Tapestry

A fabric consisting of warp threads upon which a design or picture is woven by variously colored wool threads. Generally a wall hanging.

Technique

Process by means of which an artist uses his media to express creative concepts.

Tempera

A powdery pigment which may be mixed with oil, water, egg, glue, or milk to form a painting medium.

Template

A gauge or pattern or mold used to reproduce a number of identical copies of a thing.

Tension

Degree of tightness at which the warp is stretched. All parts of the warp should have the same tension.

Terra cotta

Low fired clay or the sculpture and pottery so made.

**Tessera,
Tesserae (pl.)**

A small piece or pieces of stone, glass, clay, or plastic used to make mosaics.

Tertiary colors

Colors obtained by mixing a secondary color with an adjacent primary color.

Textile

Any woven material.

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Texture	The actual roughness or smoothness of a surface or the illusion of roughness or smoothness.
Three-dimensional	Pertaining to a design or sculpture which has depth, width, and height.
Thumbnail sketch	A small, quick sketch suggesting a larger plan or design.
Tint	A tone of color resulting from the addition of white to a basic hue.
Tonality	The relative purity of a color as determined by the presence and absence of white, black, or another hue.
Tone	The general effect produced by the combination of light and dark.
Tooling	Chasing, embossing, or otherwise adding surface relief and decoration to a metal or leather.
Transition	A gradual change from one thing to another. For example, a transition from light to dark, or a transition from thick line to a thin line.
Transparency	A surface or quality of surface through which rays of light may pass and through which other things may be seen.
Tusche	A greasy liquid used for painting designs in silk-screen and lithography.
Two-dimensional	Having only length and width, but no thickness, such as a flat plane or a piece of paper.
Typeface	Style of movable type. For example: Bodoni, Gothic, Roman, Italic.
Underglaze	The color and decoration applied to pottery, before the application of a transparent glaze.
Unity	The oneness or wholeness of a work of art.

Uppercase letters	Capital letters.
Value	The lightness or darkness of a color.
Vanishing point	In perspective, an imaginary dot on the horizon at which two or more parallel lines would appear to converge.
Varied line	A line of irregular intensity and/or width used to provide character and interest to a painting or drawing.
Variety	Differences in lines, shapes, textures, and colors in a design.
Vermiculite	An insulating material which, mixed with plaster or cement, provides a carving or casting medium.
Vertical	Upright, erect, perpendicular to a horizontal plane.
Volume	Space within, contained in or circumscribed by a form or design.
Wall hangings	A fabric wall decoration.
Warm colors	Colors which evoke a warm psychological response, especially the reds, oranges, yellows, and other colors with admixtures of reds and oranges.
Warp	Threads that run longitudinally in the process of weaving; the warp threads are strung first on a loom.
Wash	A thin covering of water or watery paint over a surface.
Watercolors	Water-soluble pigments which may be transparent or opaque.
Wedging	The process of kneading and purifying clay to remove air bubbles and impurities.
Weaving	The craft of making fabric by intertwining threads, yarns, and other fibers to make a cloth or fabric.

Weft

The cross-threads of weaving which interlock with the warp.

Woodcut

A block of wood upon which a design or picture is engraved. Also the print made of the block.

Woof

Another term for weft.

Yarns

Soft threads, generally composed of loosely twisted fibers of cotton, wool, linen, etc.

Zonalite

A lightweight granular insulating material which may be mixed with plaster or cement to form a carving or casting medium.