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ABSTRACT
GRADES OR AGES: Grades 1-12. SUBJECT MATI_?: Art. ORGANIZATION AND PHYSICAL APPEARANCE: The presentation gives broad outlines and suggestions on how to teach a variety of art forms. The pages are lithographed in loose-leaf form and are bound in a plastic cover. OBJECTIVES AND ACTIVITIES: AS a guide it aims at being a
3. starting point from which a teacher, operating at any grade level. . can adjust to a changing curriculum. INSTRUCTIONAL MATERIALS: Materials are listed for each art medium taught and for each level of activity. STUDENT ASSESSMENT: NO provision is made. (JB)

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South Dakota State Dept. of Public Instruction, pierre.
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# DEPARTMENT of PUBLIC INSTRUCTION 

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F. R. WANEK, Acting Superintendent State Department of Public Instruction

These books are the property of the state. They are provided for the use of the classroom teachers and art personnel. They are to remain in the classroom. Each principal has the responsibility to see they remain in the schools in the event that teachers change positions.


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Note: in oo perliminery meanie

As Director of Curriculum it has been most interesting to watch the development of this Art Guide for teachers of South Dakota.

A great deal of Art "knowhow" has gone into this guide. The members of the committee are dedicated people who have given many hours beyond the committee sessions to give South Dakota the best of their knowledge.

It is the wish of the Department of Public Instruction that each teacher has a copy of the guide. It is hoped that each school child within the state may benefit from the Art instrucion made available to then through the teachers of the state.

Director of Curriculum K-12
Department of Public Instruction


Director of Elementary Education Stere of South Dakota

## Message from the Superintendent...

Considering the many contributions to elementary and secondary education which were made by the late M. F. Coddington, we consider it most appropriate that this curriculum guide be dedicated to his memory.

He devored-his-entife-adul-life-to the enate of education in South Dakota. He asked no favors, he never compromised on principles, and he refused to settle for anything but the best.

After much success as a teacher and school administrator, his dedication and devotion to good education was recognized by Governor Foss who selected him to serve as Superintendent of Public Instruction and fill the vacancy caused by the death of Harold S. Freeman. He not only completed that term but was elected to five additional terms. Even, though he was approaching retirement age, Mr. Coddington never lost his interest in education and continued to be concerned with the affairs of his office until the time of his final illness.

May this curriculum guide be of much value to the Art teachers of South Dakota and may the elementary and secondary students of this state benefit greatly from the energy, creativity, and many hours of hard work which were so willingly given by the members of the curriculum committee. May the memory of the devotion and integrity of the late M. F. Coddington serve as an inspiration to those using this guide.

June 1967

F. R. Wanek<br>Acting State Superintendent



We would like to acknowledge the contributing artists on the preceding page

Top left Robert Aldern. S.D.S.U. Artist in Residence
Top right Gutzon Borglum Mount Rushmore Memerial Middle left Gilbert Risvold, S.D.S.L_Lincoln Bust Middle right Korczak Ziolkowski Chief Crazy Horse Middle right Milton Kudlacek, Art Dept., Dakota Wesleyan, Painter

Bottom left Oscar Howe, U.S.D. Indian Artist in Residence
Bottom right Harvey Dunn, S.D.S.U. Painter and Illustrator
Page 49 Palmer Eide, Art Dept., Augustana Liturgical Art

Many more examples perhaps should have been included but space would not permit.

To all who contributed pictures, work. suggestions, art work we express our sincere thanks. A thank you to the Robert Knopf family for use of their daughter's picture on page 8.

Special recognition must be given to Mrs. Olive Berg whose untiring efforts made this book possible. Her service to the State of South Dakota as Director of Curriculum will not be forgotten. Her interest and concern fo: the children of the state to insure they receive the best our state had to offer in all fields of education including art culminated with this guide. We the Art Committee hope this book justifies her trust in us.

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Ant is Execting!
In art a child . . . SELECTS, EXPERIMENTS, ARRANGES, DISCOVERS, And SOLVES PROBLEMS.

He works with . . . PAINTS, PAPER, CLAY, WOOD, GLUE and many other media and tools.

He creates . . . . . PAINTINGS, CERAMICS, COLLAGES, PUPPETS and countless things . . .

But. . . . . . . More important than the "things" he creates is the development of his personality. What the material does to the child is of much greater significance . . . than what the child does with the material.

Art enriches the child's life through the development of heightened sensitivity toward his environment.

As he becomes more perceptive the child is challenged by the many beauties and wonders of South Dakota ... of America ... of the world and all its people. . . FRESH, NEW, AND BEAUTIFUL.

## Goals...

Art has been an integral part of human experience since the beginning of time.

## IT IS IMPORTANT THAT EVERY CHILD IN SOUTH DAKOTA HAVE EDUCATION IN ART...

Because... it makes his life more rewarding as it quickens and deepens the quality of seeing, touching, hearing, selecting, and arranging.
it develops skills and personal satisfaction in quality craftsmanship.
it encourages discrimination and good tastes as he learns about design and its interrelation to all of life.
it contributes to democratic living in a world so concerned with materialism and mechanization. Art is a humanizing factor which recognizes the unique personality of every child.
it is a universal way to communicate, a fulfillment of his never-ending need to express-himself. It is his dreams, ideas, and contemplations in his visual language.
it makes him receptive to beauty, alert to the wonders of South Dakota, its hills, prairies, rivers, farmland, and people. It helps him to appreciate his cultural heritage and makes him sensitive to the pulse of the world.
"The gevoral end of thet a the good of man." Arusode 4th Century

It is not the purpose of art education to train artists. Teaching art activities in all grades should help the creative, social, emotional, physical and aesthetic growth . . . . .

## It will contribute to his total growth...

CREATIVE GROWTH is seen in the originality of ideas . . .

SOCIAL GROWTH . . . is the child's increasing ability to work couperatively in a group and to sense the needs and the feelings of others. He learns give-and-take sharing.

EMOTIONAL GROWTH is the child's ability to identify himself with his own work in his expression of personal feeling or experience.

PHYSICAL GROWTH is motor control and ability to coordinate use of mind. eye. and hand.

AESTHETIC GROWTH is the increasing sensitivity to the organization of ideas and feelings by the use of material, form, color, and texture.

The space or galactic age will find art playing a more significant role in the total curriculum. Our concern needs to develop the whole child with a balanced personality and to develop productive citizens who can take their rightful places in the future society. When art is properly emphasized and given its rightful place of importance in educational structure, then enriched creative responses result.
"Imagination is move maluable than amomedige." there Einstein
c


# The Teacher... <br> As a teacher you cannot assume a passive attitude toward Art Education. 

You must know the nature of art and :er value in contemporary education.

You must know the child - his uniqueness. his growth levels, his modes of expression, his interests, and his potentialities.

You must identify yourself with the needs and aspirations of every child.

You must know the most effective methods of teaching: to provide rich challenging experiences which will help pupils see, appreciate, understand, and apply knowledge.
to encourage experimentation in two and three dimensional activities.
to learn the possibilities and limitations of media, tools, and facilities.
to stimulate, through pianning, discussing, and evaluating.
to provide a climate for creativity in an organized aesthetically pleasant atmosphere.

You must be professional . . .
by improving your proficiency through experimentatiou, workshop participation, study, and travel.
by active participation in professional organizations.
by cultivation of a well-balanced personality coupled with good taste in dress and manner. You must be an inspiration to your pupils as you make them realize the personal satisfaction of LIVING WITH ART.

## 7he Cheld...


#### Abstract

Remember...Each child is an individual with his own unique personality and he is not a small adult. Art Education is a sequential developing process. His art work reflects development in perception, skill and maturity. Education in art is for all children.


CHILDREN OF 5 AND 6 have a high energy level. They like to imitate, sing, dance, and play. They like imaginative games and manipulative activity. Successive stages in manipulating occur as the child enjoys color and movement, and discovers lines and shapes at random. "Schemata" for human forms appear.

CHILDREN OF 7 AND 8 are exuberant, imaginative, inquisitive, and confident as manipulative skill increases. They respond to real and vicarious experiences. The number of objects and details increases as the child grows in familiarity with his environment. Sky lines, base lines, and deviations as X-ray, time-space, fold-over, and multiple view points are seen. They portray what they know and believe as they manipulate large tools and materials. They relate experiences to self, family, home, and friends.

CHILDREN OF 9, 10, AND 11 are gregarious, loyal, expressive, and subjective. Manipulative skill increases and becomes more realistic as they identify with children of other times and places. Art becomes an integrating force with social studies. language arts, and other areas of the curriculum.

THE PRE-ADOLESCENT is self-conscious, critical, changeable, dramatic, realistic, and at times rebellious and uncooperative. He explores complex processes as his interest shifts from process to product. Group opinion is valued as boy-girl interests grow.

THE ADOLESCENT child is sensitive, idealistic, reflective, and inventive. He pursues advanced art techniques and processes. Awareness to other arts, science, and industry grows. He is dedicated to worthy causes. He is interested in the place of art in history and begins to think of art as a vocation or leisure-time activity. Spiritual and moral values of art are strong at this time.

## The Parents...

## PARENTS as well as the teachers should have a com-

 mon understanding of the importance of Art in education.
## As a parent you should .. .

. . ACCEPT your childs art as an honest statement of his emotional and intellectual reaction to his experiences.
... REGARD your child's art as unique and not to be compared to the work of other children.
. . . REMEMBER your child's art is relative to his maturation level.
... ACKNOWLEDGE art work brought home with a sincere interest. "Tell me about it." not "What is it?"
. . . ENCOURAGE art work at home by providing good materials and a place to work.
. . . DISPLAY your child's work for a short time and then dispose of it by cooperative effort.
... PRAISE good work habits and encourage responsibility in the care of tools, materials, and work-space.
. . . DISCOURAGE use of color books, patterns, paint-by-number art. and other stereotypes as detrimental to creativity.
.. ENCOURAGE the developnient of good taste by supplying an aesthetic home environment.
. . . ENJOY creative experiences with your child.
. . . TAKE time to enjoy beauty with your child.
... FAMILIARIZE yourself with art. Visit art classes and exhibits. Read aboui art and its place in education.

REMEMBER: A GENUINE INTEREST IN HIS ART WILL HELP YOU KNOW YOUR CHILD.

"One of the move cmpertant fretere in selumulateng expresicion a adinde interest, martemently pareweal interest." Davied Tremdedowtes.

## The Administrator...

# You the administrator, are important to the success of the art program. Your teachers look to you for leadership and guidance. You can help by... 

UNDERSTANDING the importance of art to the child in the total educative process.

COOPERATING with the teachers:
to provide a balanced art program for all children including the gifted and retarded.
to provide adequate materials, tools, facilities and space.
to provide time for art activities.

ENCOURAGING competence in teaching:
through programs of in-service training.
through keeping abreast with contemporary trends in art education.
through membership in and support of professional organizations.

ENLISTING the support of the community.

INTERPRETING the art program to the parents and to the community.

ACKNOWLEDGING and supporting achicvements of the art students. and their teachers.

ATTENDING functions and exhibits sponsored by art clinses or the school.

## Intraduction to this Guide...

# It is our intention that this guide be simple, practical, and easy to use. It provides some direction for you to develop an effective art program:- 

- We feel this guide is unique in organization and should be helpful to the administrator, parent, teacher, and above all, the children. The center section sets up some guide lines containing general information. One can refer to these to establish direction an art program should take.
- You will note activity packets which contain both two and three dimensional activity suggestions . . . you may arrange these to suit your needs. One should keep in mind gradual sequential growth . . . start with the simple and progress to the complex. Left pocket two dimensional. Right pocket three dimensional.
- In no case is the intent to become stereotyped. We hope to let true creative atmospheres exist where teacher and child solve art problems in various ways with countless media.
- Any suggestions made are starting points from which the teacher can adjust approaches to fit the needs of children. We have avoided grade level indications for the above reason.
- Our intent was to organize this guide so that it could adjust to changing educational curriculum, and a rapidly changing world. To keep up to date, additional suggestion sheets can be added as changes occur.

[^0]> "Making allowances for human imperfections, I do feel that in America, the most valuable thing in life is possible, the development of the individual and his creative powers."

Albert Einstein

Throughout the preparation of this Art Guide, the committee has endeavored to construct a program which will be of the greatest service to every teacher and every child in the State of South Dakota.

Our first and perhaps our most difficult task was to determine a plan of organization which would most effectively accomplish the goals of the contemporary art program. After considerable study and evaluation of other guides, we decided a SPIRAL OF LEARNING would be the most unique and helpful for the following reasons:

1. A SPIRAL OF LEARNING IN AND THROUGH ART WOULD PROVIDE UNITY IN A K-IZ ART PROGRAM

As it assumes a vertical expanding interrelation from one area to the next, the beginning experiences will function as a foundation for advancing experiences as recurribg orientation is recognized. In this way education in and through art would be cumulative. The resulting continuity would replace the present day compartmentalization of art into specific grade levels with more effective unity gained through BEGINNING and PROGRESSIVE experiences.

Ignorance of a continuity has caused too many teachers to follow a smattering of "piece-meal art projects" with little validity and less coherence. No wonder students often remark: "Do I have to work with clay again?" or "I did that last year." (What if Michelangelo did no more than one piece of sculpture!)

[^1]
## Speral of Learneng

## 2. A SPIRAL OF LEARNING IN AND THROUGH ART WOULD PERMIT AND ENCOURAGE A GREATER DEPTH OF COMPREHENSION.

The nature of art as a ield of knowledge and discipline can be investigated with increasing profoundness through the use of this Art Guide. We have attempted to point out ways by which the beginning and progressing experiences are approached with insight, refinement, and judgnent as the same art goals of art education function as a core from one level to the next in a spiral form. As comprehension develops, each child will grow in sensitivity, skills, understandings, and attitudes.

## 3. A SPIRAL OF LEARNING IN AND THROUGH ART WILL CONTRIBUTE TO A MORE EFFECTIVE UNDERSTANDING OF THE LEARNER'S CREATIVE GROWTH AND MORE adequately fulfill his psychological needs.

Personal approaches to art are emphasized, throughout this guide. Respect for uniqueness of expression, development of autonomy, and release through fulfilment and liberation are stressed. Experiments to provide insights into types of materials, tools and techniques are merely suggested as the teacher is reminded that these are always secondary factors to the needs, interests, and growth of the learner. Teachers are also reminded, that there is no hierarchy of art expression. None (painting, drawing. sculpture, ceramics, etc.) is mere important than another. Therefore, a child should be given unlimited opportunities to work in all types of two and three dimensional art. It must be remembered too that we do not initiate or complete any one expression at any specific time or in any specific order. Children should be encouraged to draw, paint, sculpt, construct, weave, etc., on all levels of the spiral.

"Art a a mrocse and a mraducer dene creatindy in corme of swality
sualified by mee and derected comard a cence of peroowal frifilement."

## Spiral of Learning

> "And out of yourself create...Look for your own. Do not do what somieons else could do as well as you... Do not say, do not write what someone else csuld say, could write as well as you. Care for nothing in yourself but you feel exists nowhere else . . . and out of yourself create, impatiently or patiently the most irreplaceable of beings."

> Andre Gide

We constantly remind teachers that the child's interests and needs are paramount.

## 4. A SPIRAL OF LEARNING IN AND THROUGH ART

## WILL PERMIT A RICHER INTEGRATION OF ART

 INTO THE WhOLE EDUCATIVE PROCESS.As art is based upon a heritage of man's achievements his needs to communicate ideas, feelings, and aspirations are realized. A child will recognize this need and its fulfillment as he gains knowledge of the art forms of other cultures and times. In this way he will become involved in the humanistic dimension of art expression. He will gain a richer sensitivity to human feelings as he grows in understanding of the universality of visual language. In this way integration through art will give a horizontal as well as a vertical movement in the spiral of learning. Art is education in awareness, selection, imagination, and judgment from kindergarten through high school.

For these reasons, we believe a SPIRAL OF LEARNING con realize ort gools most effectively, economically, ond qualitatively. With this Art Guide we hove ottempted to point a woy. We ask your cooperation in pursuing it. .
 these abletices comet the power to redate and intervect the mold around them."


## Fundamentals... Sines

## LINES ARE BASIC IN NATURE AND ART.

The three properties of lines are as follows: DIRECTION . . . WEIGHT $\ldots$. . and COLOR

Lines suggest movement. Vertical lines suggest dignity and stability. Horizontal lines are calm and passive. Diagonal lines give a feeling of active energy. Curved lines are graceful, flowing, and continuous. Psychological reactions are familiar to all.

Lines suggest emotions and many moods.
Lines have qualities such as light, dark; thick, thin; lyrical, bold; soft, hard; smooth, irregular.

Pleasing lines define space. A line can be an edge, which we might refer to as a silhouette, or an outline of an object defining a contour or shape as it exists in space.

Lines can be made with a pencil, chalk, pen, brush, crayon, sticks, or string, and many other


## Fundamentals... Forms

## "The shape or structure of anything . . . All matter has form." <br> Webster.



Natural shapes result from natural process. Stones, eroded soil, wind blown sand, the curving course of a river, animals, man, stems. leaves, trees, blossoms, plants . . . in fact, it includes all organic life.

Mathematical shapes are regular measured shapes such as: circle, rectangle, triangle, sphere, cone, pyramid, etc. Mathematical shapes express workings of man's mind . . . laws of reason, order, and measure. These shapes are fixed, precise, therefore inert.

Artistically these forms found by man in nature are expressed simply in various ways to become manufactured, conventional designs or a form of abstraction which reduces them to their simplest structure.

Forms are organized by artists into compositions and designs, through repetition, balance, harmony, unity, rhythm, emphasis, proportion, and progression.

FORM FOLLOWS FUNCTION

[^2]

## Fundamentals...Color

Understanding color principles is imperative to a successful art program. Learn to speak the language of color.

Hue: The nome of ony color
Primaries: RED . YELLOW . BLUE
Connot be produced by mixing.
Secondaries: Result by mixing primaries. RED plus YELLOW equols ORANGE. RED plus BLUE equols VIOLET BLUE plus YELLOW equols GREEN

Tertiories: (Intermediates) result from the mixture of o primory ond secondory. Yellow-green, Bluegreen, Blue-violet, Red-violet, Red-orange, Yellow-orange.

Value: The lightness or dorkness of a color.
Tints: Mix color into white for light value.
Shades: Mix block into color for dark volue.
Intensify: The brightness or dullness of a color.
If coler a grayed or dulled it is coun chroma If coler is brilleant it is a high chroma.
Color can be grayed or dulled by adding a small amount of its opposite color on the color wheel.

Equal amounts of complement proauce gray. Green and red, blue an:l orange, yellow and violet, etc.

WARM COLORS suggest fire: Red, orange, and yellow. These colors tend to advance.

COOL COLORS suggest ice, water, foliage; Blue, violet, green . . they tend to recede.

Experiment with mixing color to produce variations of hue, values, and intensities such as: Brown, Turquoise, Magenta, Chartreuse, and Beige.


"2mawta bellega al car gle aceat." - "How meeh beawty the heart perceivet
through the espe."

## Fundamentals...

Color schemes are important to understanding color applications in harmonious combinations.

MONOCHROMATIC . . . use values and intensities of one color.

ANALOGOUS . . . use neighboring colors on the color wheel. A dominating color must be carried out. Many analogous combinations are possible. Example: Yellow-green, green, blue-green, etc.

COMPLIMENTARY ... . use opposite colors, varying values and intensities. Example: Red and green, blue and orange, yellow and violet, light red and dark green.

SPLIT COMPLIMENTS . . . use opposite colors, split and choose colors on either side of the compliment. Example: Red with Yellow-green and blue-green.

TRIAD . . . uses all primaries and secondaries or three intermediate colors forming an equilateral triangle on the color wheel. Try combining light and dark, bright and dull variations. Example: Tint of red, shade of yellow, and bright blue; Tint of blue-green. shade of yellow-orange, and dull red-violet.

Choose a color scheme suited to your purpose. Determine the most important color and how you wish to use the tints and shades. Always vary the values and intensities. Color mixing is important to color harmony.

Equal amounts of color have little interest. Balance large and small amounts by using light, bright, dark, or dull color for variety.

## Fundamentals... Space

Space is the empty area around or within forms, a sort of resting and breathing.

Space is invisible, a "nothingness", unless limited by something concrete. Space is never experienced in pure form, but always defined by some enclosure which shapes it and makes it measurable, as something filled with material objects penetrated by light and saturated with color.

Earth is a spot in this universe. Our visual experience shows infinite space of the universe appearing as domical cover of a blue sky studded with stars hung in the clouds. We can comprehend limited space. Space is an interval between things . . . like pauses in speech or music . . . we can clearly see it and feel it. Shapes carved by sculptors composed by architects use space in various ways. Space in a bowl or defined by the walls of a building is a positive shape . . . just like the bowl or the building itself.

## The space area ou theis page aed in thes look are concerned acth ahe afperarance of thice guide.

Area-space plays an active part in a positive shape within the design. Forms, figures are shaped and proportioned with as much care as the figures themselves using area-space.
Contained air-space called volume, plays an important part in sculptural and architectural compositions. You will find examples of architecture in which carefully composed volumes play a dominant part. Masonry forms an enclosing shell within which a great body of space . . . given substance by the light which streams through it . . . reposes as in the Pantheon, moves as in the soaring nave of Amiens cathedral.

Architects and sculptors work with real masses and real space. Painters work on flat surfaces. Area-space plays an important part in their work, but air-space and volumes can only be suggested, never actually used. In spite of this, painters have striven for centuries to develop methods to overcome this limitation. How far they have succeeded in giving convincing illusion of space is a very important part of any work of art. How deep is space?

##  monthwile."

## Fundamentals... Texture

## OF THE FIVE PLASTIC ELEMENTS, TEXTURE DEALS MOST DIRECTLY WITH THE SENSE OF TOUCH. Surfaces of objects produce tactile sensations when we touch them. The tactile value is best appreciated when an object is actually touched.

Close your eyes and run your fingers over this page, then over some article of clothing you are wearing, touch the chair in which you are sitting. Try sandpaper, fur, smooth glass, your fingers will sense the differences. Texture is the surface quality of objects such as: smooth. rough, silky, etc. Texture differences can be striking as roundness and squareness, (form differences); red and green, (color differences); and are of great importaice in giving character to objects.

Contemporary architects and designers have at their disposal a great variety of textures. Efficient transportation permits them to use woods, metal, stones from far countries. Science has given them a treasure of new materials as: glass, stainless steel, ribbed plywood, concrete, and countless synthetics. Were it not for renewed interest in texture we would still be repeating the common type of interior with no surface richness or variety. For exampie: everything smooth and slick would be unnoticed. The surfaces would appear just monotonous.

Painters, too have reawakened to the richness and vitality given by textures. Academic painting of the nineteenth and twentieth centuries placed high premium on porcelain-like smoothness. The smoother the surface and forms, the more the painting was admired. Cezanne, Van Gogh, Picasso, Marin, and others rediscovered texture value.

HOW SHOULD TEXTURES BE USED? What are the determining principles? Here as in all other aspects of art, there are no dogmatic rules or laws. It is a matter of relationships, appropriateness to function and material. The texture of an object should be in character with its form and color, strengthening both of these elements. Textures should show definite relation one to another when used in combination. They may be harmonious or they may be deliberately selected for contrast. Some words suggesting texture are: wood, plaster, stone, glass, cotton, metal, satin, fur, velvet, wool, sandpaper, sand, leather. rug, leaves, salt, flour, sugar, etc. How many more can you add?

[^3]

## Fundamentals... Principles

The elements of design are the structural devices of composition. They are the "what"of content - the structure of subject inatter. The principles of design are the ways and means of compositional organization - the "how" as applied to structural elements.

The principles of design apply to each element as it is used in relation to the other elements and as it is used in relation to the overall composition.

## RHYTHM

The flow of movement within an element or with reference to - another element or to the whole composition is achieved by:

- The repetition or recurrence of an element
- Tension between the parts or certain parts
- A similarity or resemblance of these parts
- Fill-in or completing shapes by imaginar/ lines
- Continuance, the seeing of lines beyond their limits, creating more movement
- Recession or advancement through greater or lesser contrast with the background
- Radiation or divergence from a focal paint


## BALANCE

The distribution of physical properties to suggest stability, these may be:

- Symmetrical - formal - even distribution of parts - identical distribution of elements.
- Asymmetrical - informal - unequal distribution of parts irregular distribution of elements.


The cover of this guide makes use of asymmetrical balance.


## Fundamentals... Principles

## EMPHASIS

Stressing elements to make more interesting or important through size, shape, position, color quality or texture.

- Emphasis creates a focal point of interest
- We find it used in interior decoration, etc.
- The artist uses it in pictorial composition
- Found also in architectural work, furniture, posters, room plans, designs, etc.

One of the important principles used in art

## PROPORTION

The comparative relationship between elements for harmony and agreement. These elements should vary by:

- The amount -- the size - dominance - sub dominance


## VARIETY

Change or contrast within one or more elements to add interest and to avoid monotony through:

- size and shape
- color and value
- movement and direction


## UNITY

All principles and elements are utilized to create unity through the combination of parts to promote a total effect

- A consistency of style and character
- Clarity of a single or main idea
- Organization of lines, space, and tonal quality

> "The deaire to do chinge acte oncit hands. to be ereative and to find a meame for seff-exteresicon is particularly characteristic of aws age."
> Tendelowides


SPIRAL OF LEARNING

IEGINNING ACTIVITIES

OBJECT STUDY
figure study
STORY TELLING
THINGS I DID
THINGS WE DID
imaginative situations

OESERVATION
WORK, SPECIAL EVENTS PLAY, TRAVEL, SPORTS. HOLIDAYS, ETC.
FAMILY, SCHOOL, CHURCH, COMMUNITY. AND NATURE.

ADVANCED ACTIVITIES

OBJECT STUDY fIGURE STUDY MATURE STUDY STILL-LIFE, LANDSCAPES, IMAGINATIVE SITUATIONS, PORTRAITURE, CARTOONS,

OETRY, NOVELS, DRAMA, HISTORY, SCIENCE, AND SOCIAL STUDIES

## DESIGN

DECORATIVE, ABSTRACT NDUSTRIAL, INTERIOR, FASHION, AND PRODUCT

## EXPERIMENTATION

MIXED MEDIA, AESTRACT, AND SHADING TECHNIQUE

## Draming...

As an activity basic to all other art activities, drawing is most often the first activity attempted by the beginner. Children begin with manipulative scribbles, experimenting with any material that makes a mark. The scribbles eventually become meaningful and are given names. Discovery of a descriptive purpuse in drawing soon leads to a symbolic use of lines to enclose space in recognizable shapes. As. interest and observation of environment increase, the symbolic shapes take on more representational meanings; and the young artist draws more realistically.

This early response is intuitive and should be encouraged with activities that permit the child to develop his own interest and ability in drawing. Corrective suggestions in linear description should come only as the child requests them as he develops in ability. With a growing interest in realism the child will require more confidence in the ability to describe or make a statement; and linear problems may be presented for experimentation. With experience and increased ability, various media may be introduced. Drawing may be pursued as a separate process or a part of the processes of design and painting.

Older students with little or no drawing experience, will go through similar stages of development learning to manipulate before achieving the ability to make symbolic and represenational statements. Manipulative problems should be provided at all stages of experience when presenting new media, new processes, and new approaches to subject matter.

## Painting...

The act of organizing a flat surface by means of pigment is one of the oldest means of expression and communication. Every child should be encouraged to paint according to his own level of ability and develop at his own rate. Progress through developmental stages occurs when the pupil is given sympathetic understanding by teachers and parents. Do not judge paintings by adult standards.

As the child seeks to express his own best ideas in his own way, the teacher guides him in the use of design elements and principles. Proportion, balance, emphasis, rhythm, opposition, unity, hafmony, and variation are stressed as the pupil grows in his ability to use them qualitatively. His work will gradually show greater action, feeling, mood, and increased detal.

Pupils will become more selective of their environment and methods of representation. His depth of perception in landscapes, seascapes, animals, and portraits improves. Group work, murals, etc. are enjoyed. More difficult media and tools may be introduced.

Greater skills are developed as the pupil experiments in wash and brush techniques. Representational and non-objective approaches should be encouraged. Greater aesthetic quality develops as pupil displays deeper involvement with color and other design elements.

Personal styles and techniques should be encouraged and refined. The various painting trends should be presented through visual aids. Better tools and materials are introduced as the student advances into fresco, oil, casein, encaustic, ink, honey and egg tempera, and the mixed media.

As the students advance the desire and appetite for painting will improve and the mastery of the media becomes successful. Try painting experiments with the aren.


BEGINNING ACTIVITIES
SPONTANEOUS MANIPULA. TION OF MEDIA G TOOLS DEVELOPS INTO GROWING aWareness of their ENVIRONMENT AS PUPILS PAINT.

PEOPLE - ANIMALS holidays g scenery and daily events

FIRST EXPRESSION ON A elackeoard use large sRUSH AND WATER

PAINT STRIPES AND OVERLAP STRIPES FOR COLOR EXPERIMENTS PAINT LARGE ON FLOOR paint at the easels SPONGE G FINGER PAINT

## adVanced activities

COLOR EXPERIMENTS COLOR WASHES AND COLOR BLENDING

SHOULD UNDERSTAND THE possibilities of color AND PAINT WITH TEMPERA, CASEIN, WATERCOLOR, AMD mixed media

Challenging colon pros. LEMS INVOLVING HARMONIES and values.


SPIRAL Of LEARNING
eeginning activities
MODELING - DECORATIONS, POTTERY, JEWELRY, MASKS, free flrm, figurines

ASSENSLING - DECORATIONS, TOYS, STABILES, MOBILES. COLLAGE, MOSAICS, MODELS, AND PLAQUES

MOLDING AND CASTING - ONE PIECE MOLDS, RELIEF SCULP. ture, jewelry, plaques

CARVING - free form, Chip, RELIEF, FIGURINES

## advance activities

modeling - decorations, TILES, JEWELRY, RELIEF, fREE FORM AND CERAMICS

ASSEMBLING - ARCHITECTURE, paper and wire sculpture, industrial, stage sets, dISplay, STABILE, MOBILE

MOLDING AND CASTING - TWO AND THREE PIECE MOLDS, portaxit heads, free forms, SIMPLE AND COMPLEX FIGURES, COMPLEX POTTERY

CARVING - IN-THE-ROUND STONE, WOOD, PLASTIC, AND SYNTHETIC STONE, SALT BLOCK

## Sculpture...

## MODELING

As an introduction to three dimensional design, modeling activities are adaptable to any art program because of simplicity, availability, and economy of material. The pliable plastic materials used are easily manipulated and serve to develop muscle control and coordination.

The process of constructing is basically simple but can be carried to a high degree of complexity and refinement as dexterity, capability, and craftsmanship improve.

## ASSEMBLING AND STRUCTURING

Any material that can be glued, stapled, wired, nailed, or fastened together in any way for stability is suitable for assembled design.

As an art activity assembling provides experiences in material usage and aids development of coordination through the manipulation of materials. Scrap materials offer variety for experiments.

## MOLDING AND CASTING

Simple molds can be made from boxes, box tops, or slabs of cardboard or wood. Base materials such as: clay, wax, and plaster can be placed into the mold form, then modeled or carved into designs.

Plastic material thinned to a liquid can be poured into the mold and allowed to dry. Remove dried object and re-use the mold if desired. Two and three piece molds may be formed around objects that have been previously modeled in clay, wax, plaster, papier mache and other materials. The molds may then be used for duplication of the modeled object by casting.

## CARVING

In contrast to the other processes of construction, carving involves the taking away of parts of a solid material rather than the adding to or building up of a solid structure. It is the process demanding some skill in the use of materials and tools. Relief and in-the-round carving may be done with simple tools in easy to handle materials as the students have developed muscle control and coordination.

Printing is a process of impressing a composition from a master surface onto a paper or cloth. The artist either cuts or draws on the master surface, and the original design is transferred as many times as desired.

There are four main groups of prints: Those produced by relief cutting, intaglio prints, planographic prints, and those made through a stencil process.

A relief print is a cut-away design in which the area left standing makes an impression while the background is cut away from the block surface. Ink is applied to the block which is then pressed onto paper or cloth. Wood and linoleum are the usual materials for block prints, but elementary printing might be done with potato, carrot, eraser, clay, gadget, etc.

Intaglio is the opposite of relief in that the cut-away areas hold the ink and do the printing. A metal plate is inscribed with the artist's design, inked and then the surface is wiped clean so ink remains only in depressed areas. Contact with damp paper produces an intaglio print. Etchings, engravings, aquatints, dry points, and mezzoprints are all variations of intaglio.

Planographic prints are produced from a flat printing surface and are usually called lithographs. This has traditionally been done by drawing with a grease pencil on stone, but newer methods are bringing it closer to the classroom. A litho sketch kit is now available which makes it possible to draw on a plastic surface. The drawing is treated chemically to resist water and accept oil when pressed onto the paper.

Stencil printing is a simple form which children can easily master. Even the serigraph or silk screen print, is not too difficult for school children. Ink or paint is pressed over a paper or cloth surface and does not print where the stencil protects the material. Only the cut away areas will carry the print.

spiral of learning
beginning activities
SPOOL AND DOWEL PRINTS, CLOTHESPINS AND STICKS, WOOD BLOCKS AND STRIMG, potato ind carrot prints. ERASERS AND GADGETS
texture prints over scraps of material

CARDSOARD, CORK, AND rumber block prints

CRAYON FOIL PRINTS
plaster, soap prints ruseer sand prints STENCIL PRINTS SIMPLE LINOLEUM BLOCK PRINTS

## advanced activities

LINOLEUM, WOOD AND celluloid printing

STENCIL AND SCREEN process printing
plasten, soap and
WAX BLOCK PRINTS
MONOPRINTS, GLUE, LITHOGRAPHIC, AND misc. print material

ETCHING, ENGRAVING, DRY-POINT, ARUATINT, MEZZOPRINTS.

spiral of learning
beginning activities

Paper can ee folded, CUT, TCRN, CURLED, $G$ pasted.

ONE FOLD CUT, DEVELOP simple textures and surface patterns for FLOWERS, DECORATIONS, birds, masks, figures,
decorative floats, DISPLAYS, CROWNS, LAMPSHADES, FORMS, CHRISTMAS ORNAMENTS, GEOMETRIC FORMS, FUNCTIONAL FORMS

## advanced activities

THREE DIMENSIONAL SCORED FORMS, WITH interlocking pieces, AESTRACT SCULPTURE, ARCHITECTURAL FORMS, AFRICAN MASKS, TOTEMS, SCULPTURED FACES, THREE DIMENSIONAL ANIMALS, figures, objects.
PACKACIMG CONSTRUCTIONS inventive structures

## Paper Scuplture...

Paper has never been fully exploited. It has usually filled the role of a passive carrier of other art media. Paper offers unlimited challenges as a creative art medium by itself. It is readily accessible, comparatively inexpensive, requires few tools and equipment and stores easily.

A beginner finds pleasure and satisfaction in experimenting and manipulating paper. As pupils see their paper forms take shape they gain a new perspective as awareness of closed, open, and expanding forms result.

As students develop in ability seeing paper taking on new and interesting dimension, they plan, solve artistic problems and make judgments as a designer artist. His explorations of paper as an art medium lead him to discover characteristics, possibilities, and limitations. As they are challenged with many problem-solving activities, visualization improves. They develop an awareness of commercial uses of paper, such as: the various packaging items in use.

Paper sculpturing adapts to all age levels and abilities. As it stirs an interest in accuracy and quality craftsmanship they develop an appreciation of Japanese origami paper folding techniques. Advanced problems with paper really bring out the student's creative ability. Simple folds, to very complex ones, develop sequentially and gradually. Students can achieve a high degree of success with this medium.

Pupils can have numerous experiences with limited tools and expense, which can easily be projected to free time and out-of-school and hobby activities. Art vocabularies are enriched with such words as: plane, score, flexible, pliable, overlap, interlock, abstract, etc. The learner can be introduced to experimentation with design elements in new ways.

[^4]
## Papier Mache...

Papier mache is a French word which means mashed paper. It designates both a process and a product of paper combined with wall paper paste to form three dimensional objects. Torn paper pulp, strip, and laminated sheets when combined with paste make strong attractive articles, which challenge the imagination at all levels.

Papiet Mache is important because it:

- Interprets design in a new and exciting way
- Inspires students to three dimensional thinking
- Challenges all levels of pupils in problem solving
- Offers opportunities for individual and group work
- Develops skills and finger dexterity in the use of many tools and materials.
- Integrates effectively with many other subject areas
- Develops appreciation of other cultures and times
- Encourages fantasy and imaginative thinking
- Provides the school with attractive displays
- Stimulates out of school activities and hobbies
- Allows pupil to do independent free-time work
- Makes pupil aware of papier mache in his environment such as: commercial packaging, displays, and storage
- Adapts easily to the school with a limited budget.


SPIRAL OF LEARNING
beginning activities

MODELING FROM PULP ANIMALS, PEOPLE, BIRDS, MASKS, ETC.

SIMPLE STRIP AND SHEET METHOD: MASKS, FUNMY HATS, PARTY DECORATIONS, TOTEMS, PUPPETS, thays ano bowls,

DECORATIVE MAPS TERRAIN, DIORAMS, MUSICAL INSTRUMENTS.

## ADVANCING ACTIVITIES

INTHODUCE ARMATURES FOR LARGER, STRONGER,
ANIMALS, PEOPLE, ETC.
GROUP WORK
SCHOOL MASCOTS, FLOATS, SCHOOL INSIGNIA AND stage props.

JEWELRY
RESEARCH INTO PAPIER MACHE AS HISTORIC AND CULTURAL FORMS:
N. AMERICAN INDIAN MASKS, MEXICAN PINATAS CHINESE WAR IMPLEMENTS.


A collage is a picture made by applying different materials to a flat surface. The word "collage" comes from the French word "coller" meaning to paste or stick. Children who have had stimulating experiences in elementary school with collage materials can continue through junior high and beyond. Collage is a useful means of exploring art principles. A study in two-dimensional design is easier in collage because the student works with actual shapes and materials which can be easily moved until a satisfactory arrangement can be achieved.

A wide variety of materials should be kept on hand. Special materials can be bought but many scrap materials are both beautiful and useful. Collecting these materials a wakens both teacher and pupils to texcures and patterns around them. Keep collage materials collected in good order, properly labeled to avoid confusion. Use labels such as: rough, smooth, shiny, wood, transparent, small objects, beads, string. etc. Shoe boxes make good containers.

It is important to set out materials collected by teacher and children in an inviting way so each child will be inspired to make a thoughtful selection. Place trays, box tops, on table in front row, or a neat row on the floor. Stress replacing in the proper labeled boxes to prevent a cluttered effect. Encourage each child to use these materials in his own way. Through discussion and suggestion the teacher helps the children to learn how to make their own choices.

Motivations should be broad enough to include those who use materials to make non-representational designs, also those that suggest a subject. The teacher might say "Here are some rough materials and some that are soft." "What do the rough ones suggest to you?", etc. At times a teacher may suggest that each pupil choose a subject and find materials most suited to it. He could either make a design that expressed the feeling of the subject or make a collage picture of it.

Mosaic is one of the oldest art forms which is being revived and used by the children in the classroom. One can turn to history for
spiral of learning many fine examples for this old art form. It has been adapted to the curriculum of today so that any classroom can take advantage of its many attributes. Mosaic work develops patience, is self-disciplining and brings out such qualities as: neatness, careful workmanship from any pupil attempting it.

It is wonderful for teaching subtle color value changes. The manipulative and hand coordination skills are developed through thought provoking problem solving techniques. The teacher should be cautioned to keep the elementary problems at the child's level and as experience is gained to try to encourage further exploration with varied art materials.

- Kindergarten children need the cutting, tearing, and pasting experience that mosaic work provides. Many kinds of discarded materials lend themselves to mosaic work. Pull aparts, fold overs, light and dark, contrasts are some of the preliminary mosaic process names. Beginners make use of simple shapes and forms disregarding the spaces between the mosaic pieces. As the pupil advances they include the spaces in their planning.

This work is time-consuming and very exacting but the students enjoy the self-involvement. An excellent opportunity for the independent v.ork of the pupil at seatwork time or when other work is complete.

## Stables-Mobdes...

SPIRAL OF LEARNING
bEGinning activities
FORM VARIOUS SHAPES vary the sizes

LOCATE BALANCES

CARDBOARD CUTOUTS COVER WITH TISSUE

WOOD NOTCHED AND COVER WITH STRING

MAKE FACE MOBILES

FIGURE AND ANIMAL USED IN MOBILES

ADVANCED ACTIVITIES

FISH MOBILES

METAL FREE FORMS USED IN MOBILES

NOTCHED DOWELS
insert at various ANGLES IN WOODEN EASES . . . String Line generators TO MAKE STABILE TOOTHPICK STRUCTURE

APPLIED TO STABILES

A mobile is sculpture that moves in space. Many objects come within this definition: a chandelier, hanging Christmas decorations, wind chimes, etc. The term "mobile" was given to a form of sculpture developed by Alexander Caulder. It is a series of shapes projected into space by a means of suspended rods and wires. As an art form, a mobile should be a unified design suspended in space so that the various parts may shift in currents of air to form different patterns.

- One type uses wire, rod, or dowels to support hanging shapes
- A second type of mobile will suspend shapes one from another
- A third style unifies wire, rod, or dowel and attached shapes

The component parts of a mobile should lend themselves to movement. Equal sizes and shapes should be avoided. Formal balance tends to be static. Groups of units should be uneven in number, ie., three - five and seven. Size and shape gradation add aesthetic intersest. Balance points play an important part in construction and if not present movement will not result. Children develop an appreciaion of aesthetic free forms, and are fascinated by movement in space.

A stabile is a form of sculpture attached to a stationary base. It is constructed of abstract lines and shapes which are assembled to form a changing pattern as the viewer moves around the structure.

A stabile may be made of one material only, or a combination of materials, such as: paper, wood, metal, strings, and wire.

Materials may be assembled on a solid base for support or adhered or attached, part by part, so that the structure supports itself.

For interest and variety, moving parts may be suspended from the stationary appendages.

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[^5]
## Metalry...

Metal work has many facets. It may include foil work with aluminum, copper enameling, etching of aluminum, beating, sawing, piercing, and soldering. Jewelry as part of metal work is really in a separate category because of the special equipment needed.

Many of the problems to be discussed are limited to exploration at the junior and sęnior high levels, however, with soft metal containers and foils and with careful planning many projects can be devised to be used at the elementary level. Simple tools can be made by the children, even scissors can be used.

The pupil soon learns good planning is of extreme importance. His work improves in quality with experience. An appreciation of early American craftsmanship and of early history develops. Many techniques are learned through the metalry processes. Pupils gain independence in working out metal designs. The problem-solving is a good approach. Stress safe, orderly habits of operation. Stress quality with experience and emphasize good design. Develops the pupil's sense of critical analysis, as he strives for inward satisfaction. Pupil learns care of materials and the use of various tools, and sharing when necessary.

Pupils learn the basic techniques for understanding the process, they are then encouraged to use creative design approaches. Teachers should clarify the thinking needed, striving for a creative atmosphere, where possible meet the individual needs. Plan, explain, demonstrate. apply, and analyze each process. A sequential approach is essential. Many schools lack special equipment but some of the basic processes can be done with home-made and inexpensive tools in the elementary grades.

Pupils are encouraged to work independently, think sequentially, make their own designs and carry them out on an individual basis. Quality workmanship is stressed so the pupils take pride in their own accomplishments.

beginning activities

MAKE TOOLS FOR
USE IN FOIL WORK
aluminum tooling
COPPER TOOLING
foil printing
tin can craft and
Christmas ofnaments
adVanceo activities

COPPER ENAMELING
aluminum etching
copper forming
sawing 4 Piercing
annealing copper
soldering findings
FILING $G$ polishing
BEATING into molo
beating into sandeag
surface disigning


Spiral of LEARNing
beginning activities
tWISting wire
COILING WIRE
hammer wire
WRAP WIRE AROUND
STONES - PENDANTS
PAPER ACHE FORMS
CERAMIC JEWELRY

ADVANCED ACTIVITIES

Wire soldering
BROOCHES, PINS
RINGS, BRACELETS TIE CLIPS, BUTTONS, CUFF LiNKS, BUCKLES, NECKLACES, ETC. ENAMELED PIECES Ceramic e metal ANNEALING APPLIQUE WORK BINDING

BURNISHING
CHAIN MAKING

Jewelry as an art form in most cases would be limited to junior and senior high. Primarily, cost of special equipment would be prohibitive. Many forms of simple jewelry at the intermediate level are possible such as simple clay pressed forms, small wood, and wire form jewelry. The pupil needs to experiment with the materials to discover their properties . . . do they break, bend, twist, shape, coil, will a hammier break them or help form them? Gluing and soldering can be tried. Purchase findings (ear, cuff, pin clasp) and experiment as to the best means to attach clay, wood, or metal to these findings. Many questions will need answers which can be provided through expertmentation. They should know the possibilities and limitations of other media used.

A design should be required before application and each project needs evaluation upon completion so that the class can benefit from the experiences of others. Many decisions are made during the exploration period. A sequential series of processes will be necessary. Techniques should be mastered on simple problems first. As students advance the problems and techniques become progressively more difficult. Quality and originality should be stressed. Quality equipment, tools, are cheaper in the long run. Do not try to get by with inferior tools.

Beginning jewelry experiences can be very rewarding if materials are used which can be made or found in the students' homes. Simple papier marche and salt clay mixtures are good starting points. All found objects should be regarded as possibilities for creative development. Paper, cloth, yarn, nylon thread or fishline, rice, beans, seeds, macaroni, aquarium chips, wood, plastic, soft metal containers, clay, and pretty stones are some of the many items easily available. Often unusual effects can result if students are allowed to use their own imaginations to fashion individual jewelry designs. Strive for variety of expression instead of having all children do exactly the same thing.

## Settering...

Lettering is important to communication. It can be useful in correlation with other subjects. Develops self-discipline and challenges pupil to improve his skill. Lettering can serve as a springboard to gain interest and pupil confidence. Many art principles and elements are utilized in lettering problems.

Children need experience in lettering. This is one skill most children can use in future employment. Lettering problems should lead to a feeling of success and achievement. Student abilities should be challenged but not be so technical as to lead to boredom or frustration.

Lettering can become a useful, interesting and sequential developmental tool for gaining further knowledge. Remember enthusiasm is contagious. If the teacher is not enthusiastic even though they themselves do not like lettering you can be sure the students will react to what they see. Children can be prepared for lettering and reading through design. This procedure utilizes the principle for reading. Top left to right, left to right, left to right is repeated in design work thus preparing the eye for the same procedure in reading.

Lettering can promote behavior, health habits, moral code, etc. The advertising principles of simplicity, clarity, balance, and appeal are learned through lettcing problems. TRAVEL, SAFETY, PROVERBS, BELIEFS, and BEHAVIOR can be taught to pupils as they solve lettering problems. Appreciation of the skills necessary to do quality lettering becomes apparent. Students will realize the values of spelling, arrangements, balance, unity and organization. Many examples are available for them to see where layout principles are used in advertising. Look for effective ones such as magazines, newspaper ads, billboards, etc. Much can be gained through lettering.
spiral of learning
eeginning activities space filling FOLD PAPER DESICNS fOLDED MAME DESIGNS CUT - MAME DESIEMS
space filling of letter designs
make wond desices cut paper letters mame repeat desiens manuscaift - Cursive
advanced activities momocram desicins LIEHT-DAAK DESIGNS cut papen lettens speedeall letteas CONVERT WORDS INTO fORMS: CAR, HOUSE, MAN, CAT, MAT, ETC. WORDS WHICH SUGGEST FEELING: COLD, HOT, WEAK, SOFT, STRONG, THREE DIMENSIONAL LETTERS, MOSTEAS, proveres, adaces sooklet desiews


Spiral of learning

- EGINNING ACTIVItIES

PUSH PUPPETS
PULL PUPPETS
SACK PUPPETS
STICK PUPPETS
MITTEN PLPPETS
fINGER PUPPETS
CARDEOARD PAPER
envelope puppets
stalrcase fold type
adVancing activities
ARM $G$ HAND PUPPETS
MARIONETTES
CHINESE SHADOW TYPE
MAKE A STAGE AND
theater for plays
STUDY SCENERY.
props t lighting
USE OF CURTAINS

One of the oldest forms of entertainment is puppetry. Every child looks forward to working in this intriguing art. Shy pupils who normally would not share ideas or express themselves feel at home when talking to a puppet they create. Stories and plays should be written and acted out by the children.

Puppetry encourages unlimited creativity in several art expressions: making puppets, writing scripts, dramatic arts, and musical accompaniment. Puppetry develops the in:agination as the inanimate objects become live characters. In a constructive way the play and fantasy element is exploited. Coordination of skills and inventiveness is brought about through the use of unlimited materials and tools. Puppetry correlates areas of learning, such as the language arts, health, social studies, etc. These become interesting and meaningful, as they contribute to security in self-expression.

Group participation without loss of self identity is promoted. Puppetry helps anti-social and aggressive pupils to cooperate. It contributes to good home-school-community relationships and opens opportunities for understanding other cultures and appreciation of one's own heritage. It adjusts easily to any age group or ability level, helps the teacher to recognize talent and potentialities of children.

Puppetry is popular in all cultures, with all people of all times. Puppets can be used for education or entertainment. Use simple approaches for very young children and develop to complex string marionettes. Puppetry aids in understanding and evaluation of commercial entertainment, as T.V. puppet shows. Pupils enjoy performing before other pupils and parents. Group participation is promoted and is one . of the best art media to gain child-confidence. Puppetry teaches ways of costuming, promotes research, and provides hobby and leisuretime activity. It is an outlet for pretense, fantasy, and imagination.

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## Stitcherq...

Like mosaics, stitchery is one of the oldest art forms. Children will readily adapt to this art media if they learn some of the basic stitches. Sewing cards are a beginning. Use of embroidery hoops keeps cloth taut as sewing stitches are tried Simple outlines attempted first give both boys and girls experience ta a media in which all can succeed. Finger dexterity is developed in threading needles. Necessity for careful planning is recognized.

With experience in earlier attempts children will giadually be able to advance to more complex approaches, such as: applique, French knots, fill-ins, or combinations to open up new vistas of discovery. Actually students design and paint with cloth and threads. Sewing with threads of various thicknesses is like taking a walk with a line. Spacing, the weight of threads, and distortions of various kinds of stitches give new ways of working with stitchery.

Group or individual activities are possibilities with this art form. Large tapestry hangings are challenging. Encourage students to explore, design, and carry out stitchery projects of their own rather than pre-stamped patterns. Manipulative finger dexterity results from this type of activity. The boys show a surprising interest in this art form.

Line generations interest both sexes. This is an excellent mathematical correlation. Color variations are possible with the changing of thread or string color. Pennsylvania Dutch designs for wall hangings, pictures, cross stitch designs, huck towel designs are some of the many possibilities of this intriguing medium. Start with a simple criss-cross sampler design and lead to more complex creations. If parents could view the keen interest of children in this medium they would make materials available for them in the home and would encourage this activity. Children have a sense of personal satisfaction and accomplishment from this type of activity.

spiral of learning
beginning activities

RUNNING STITCH
OUTLINE STITCH
StRAIGHT STITCH
SATIN FILL Stitch
herringegne stitch
cross stitching
BLANKET STITCH
chain stitching
advanceo activities
LADDER STITCHES
LazY Dalsy stitch
feather stitches
COUCHING ThREADS
fRENCH KNOTS
BACK STITCHES
APPLIQUE WORK
line generations
WHEN DIFFERENT
STITCHES ARE USED
THE APPEARANCE OF
the ofjects change

[^6]
spiral of learning
beginning activities

CUT PAPER STRIPS
MAKE WEAVING MAT
WEAVE PAPER STRIPS
CARDEOARD WEAVING
CARD TWIST WEAVES
RAFFIA-REED WEAVE
weave crepe paper
ThAT IS TWISTED
advanced activities

LOOM WEAVING
braiding laces

CANING SEATS
FOR CHAIRS
rug eraiding
place mats
make purses, belts, hot pads, scarves

## Weauing...

Since early times man has used available materials to satısfy his needs. Through weaving methods he has made his clothing, his containers, even his straw reed bamboo home. Unusual tapestries, rugs, and cloth from Arabian times are still exhibited in many museums throughout our country and the world. Early Indian weaving examples show man's attempts to use available materials to make usable articles.

With today's technical industrial skills, many of the woven articles which were once produced by the hand of our American pioneers have been relegated to hobbies. Spinning wheels, once a common sight in every home, have almost all disappeared. Even toy manufacturers, knowing man's desire to make things, have made weaving looms for children using stretch bands of scrap fibers. Weaving makes students appreciate the work that goes into manufacturing our clothing materials.

Paper weaving teaches basic basket and other simple weaves. Cardboard, card, and simple loom weaving can be attempted. Frames are easily made for school purposes. Raffia, crepe paper, reed weaving projects are also possible, using native materials. Crepe paper can be twisted by hand or power drill. Braiding lace and knotting are also forms of weaving.

Cut $\mathfrak{f}$ - ner simple strip designs can be woven into very interesting design. These weaving strips are large enough for the young, who need finger dexterity and large muscle development to enjoy this approach. As the child matures more complex and difficult tasks can be attempted. Weaving can be intriguing and complicated and will be difficult for the impatient pupil. Once the process is mastered the student can work independently designing and working out textiles or variations of the weaving skills.

## Design...



Design is basic to all creative activity.
Design is organization, using structural elements and principles of the art fundamentals for interesting, pleasing and meaningful order.

No one element of design is used alone. Each element is used in relationship to the other elements.

Every principle applies to each element as it is used in organization.

## TWO DIMENSIONAL DESIGN

Beginning experiences should encourage an intuitive and spontaneous approach to spatial design. Materials and tools should be used to promote free expression of ideas. Fundamentals and rules may be applied to problem solving as experience and ability indicates.

Advancing experiences should continue to encourage a free expression in the use of art fundamentals. Problematic application of the fundamentals should be experienced with the elements and principles of design and can be used both emotionally and intellectually.

## THREE DIMENSIONAL DESIGN

Beginning experiences should develop spatial awareness through the use of planes and solids. Knowledge of materials and tools should come from experience and use. Structural design develops perception and muscular coordination.

Advancing experiences should make use of more difficult techniques and processes to apply the art fundamentals to the expression of more purposeful and meaningful ideas in design.

SPIRAL OF LEARNING
8EGINNING ACTIVITIES

2-D PICTURE COMPOSITION
decorative design sorder, BOOK COVERS. all over repeats, 6 textile designing

PRINTMAKING -
GADGET, MOSAIC. BLOCK, COLLAGE

3-D RELIEF CARVING MODELING FIGURINES FREE FORM, POTTERY

ASSEMBLING -
STABILES, MOBILES,
MODELS 6 JEWELRY

ADVANCED ACTIVITIES

2-D PICTURE COMPOSITION APPLIED DESIGN - MOSAIC, TEXTILES G STITCHERY COMMERCIAL ART AND PRINTMAKING

3-D IN THE ROUND CARVING ASSEMPLING - MODELS. MOSILES G STABILES MODELING - FIGURINES. CERAMICS JEWELRY AND APPLIED DESIGNING WEAVING AND BASKETRY STAGE SETS, LANDSCAPES, ARCHITECTURAL, INDUSTRIAL

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spiral of learning

EEGINNING ACTIVITIES

BASIC GEOMETRIC FORMS
CUEE, PYRAMID, CONES,
COLUMN EXAMPLES

LOOR FOR EXAMPLES OF: ChURCHES, BUILOINGS, HOMES, DOMES, SCHOOLS, BANKS, STORES, ETC.

OLOER HOME STYLES OF architectural periods MODEL EULLDING

COLLECT EXAMPLES OF OLD CONTEMPORARY, G MODERN

VISIT MUSEUMS OF NEAREY cities. aecome aware of anchitectural features
adVanced activities
civic planning interior design landscape design anchitectural stnuctures sketching in perspective Study new euiloing styles MAKE MODELS OF COMMUNITY

## Architectural Design...

The architect works with steel, wood, and concrete masses and enclosed space. The emphasis the architect places on these largely determines the appearance of his buildings as in ancient temples of Babylon and Egypt.

1. Where solid mass is emphasized (Egyptian) buildings tend to be block shape. Exterior more important than interior. Architect is a sculptor.
2. Where enclosed space is emphasized the domical interior of the Church of Hagia, Sophia, the building is a mere shell. The architect composes his space aims for visual effects of light, atmosphere, and color.
3. Where emphasis is on mass and space, the building becomes a cage, a scaffold or a skeleton. Gothit cathedrals of France are good examples, curtains of glass. Many steel and glass modern constructions fall into this category.

The materials used strongly influence structure, use of large cut stone, promiotes solid construction. The use of post or lintel system gave us many beautiful temples such as the Greek Parthenon. Use of brick or the small cut stone is suitable for vaulted or arched construction. Steel makes use of the cantilever principle. The architect can emphasize the qualities of the materials he works with. He can conceal them or deny them. Examples: Weightless use of stone almost lace-like in Gothic architecture. Space can be composed by the architect.

Aesthetically the architect is also concerned with the site. The relationship of the building to the surrounding calls for different solutions. Some detach the building from the setting while others seek a harmony with the surroundings, sometimes to a point of camouflage.

Architects must be visionaries, able to design for present and future; organizing space for people's use at work, home, and play. An architect enhances a community by creating beautiful and practical buildings.

The newest area of architectural design is in the redesigning of old cities and the replanning of whole communities as in Brasilia. The concept of city-planning which is seen in Washington, D.C. is not new, but emerging urbanization is creating an urgent need for better control of our living transportation problems.

## Commercial Ant Design...

The commercial artist is concerned with designing the ordinary items of our daily living such as: furniture, clothing, cars, appliances, packages, posters, television, and stage settings, cartoons, illustrations, greeting cards, textiles, and all forms of advertising.

He must possess a thorough knowledge of the elements and principles of design and be able to sell his product in a highly competitive world. If price and quality are equal, the appearance will determine the consumer's choice.

The layout is the foundation of all commercial art work. Basically this is an arrangement of spaces into a well balanced composition. From this rough sketch ideas become simplified symbols, trademarks, or whatever form the artist has in mind.

The advertising artist must be an expert in lettering, familiar with all forms of the alphabet and capable of producing new formations with words and slogans. Newly developed transfer sheets have minimized the artist's need for doing the actual lettering himself, but he must be knowledgeable and have sufficient skill to be able to letter if necessary.

Fashion illustration is a glamorous commercial art field demanding a thorough knowledge of anatomy and textiles. Another challenging area is that of interior design which also deals with textiles and is closely allied to architecture in using space relationships and perspective.

Commerial art is a many faceted field with opportunities for unlimited design problems. Many artists today are earning a good living in the area of industrial design. Our complicated life today is tied closely to the artist. All around us are examples of the items, objects, tools, and many of the decorative and useful articles designed first by the commercial artist. Life would be drab without their original creations.


EEGINNING ACTIVITIES
making a layout adVERTISING OESIEN USE Of EASIC MEOIA lettering phoblems fashion illeusthation FIGURES IN FASHION hUMAN FORM IN LAYDUT use of heads g hanos
arkanging figunes create variety of textures needeo

ADVANCED ACTIVITIES

PERSPECTIVE FOR ARTIST ADVANCED LAYOUTS ADVANCED LINE DRAWING TONAL PAINTING STUDIO TECHNIQUES MOUNTING ART TRANSFER SHEETS AlRenush हETOUCHINE ZIP-A-TONE copr fittine RESCALING ETC.

spiral of LEARNing
aeginning activities
collect a variety OF THINGS CHILDREN ShOULD IE AWARE OF fLOWERS, ROCKS, WOOD, leaves, NESTS, SEEDS, INSECTS, OUTTERFLIES, SHELLS, FOOD, FRUITS

LIVE SMALL ANIMALS SUCH AS: SALAMANDERS, TURTLES, FISH, FROGS, BIRDS $G$ TAME LIVING THINGS AS: DUCKLING, RABDIT, CHICKS, ETC.

COLLECT PICTURES OF these things to help CREATE AN aESTHETIC aWateness of beauty fOUND IN MATURE. CALL ATTENTION TO the form, balance, 6 DESIGN FOUND.
science is related
TO this awareness.

COLLECT AS MANY EXAMPLES TO HELP CHILDREN EECOME SENSITIVE TO THEIR Environment.

## Appreciation...

DEVELOPING AESTHETIC AWARENESS

For too long a time, art appreciation in too many schools has been an occasional study of adult-selected reproduction of pictures, considered suitable for each grade level. Understandably, this practice has not always resulted in appreciation. Often the opposite resulted. First, the vistia! arts were limited to paintings, while other forms were ignored. Secondly, employment of the art elements were overlooked or minimized due to the teacher's lack of knowledge. Thirdly, the learner was given no opportunity for self-identification. Appreciation, therefore, has become little more than the memorization of names, dates, facts, and hero-worship.

For our purpose, DEVELOPING AESTHETIC AWARENESS and DISCFIMINATION will better express our goal than the word: APPRECIATION. Developing aesthetic awareness, implies growth in the ability to see qualitatively as it encourages self-involvement with critical judgment. To be meaningful, learning must begin with the learner, his environment, his interests, and his aspirations. Walt Whitman expressed the importance of awareness in the first lines of his poem:
"There was a child went forth every day,
And the first object he looked upon, that object he became,
And that object became a part of him for the day or a certain part of the day
Or for many years or stretching cycles of years."
Art awareness will sensitize the learner to his environment. As he is guided to see the wonders of nature and of man, the learner is open to perceive the beauty that surrounds him and be inspired by it. Good teachers give the learner adequate time to perceive:
. . . the pattern of flying geese against the chilly morning sky,
. . . the smooth, transparent beauty of fragile blown grass.
. . . the friendly coffee-bacon smell of breakfast in the hills,
. . . the clothesline hung with crystal bead raindrops,
. . . the momentary magic of a snowflake melting on the eyelash.

## Appreciation... DEVELOPING AESTHETIC AWARENESS

Such experience brings beauty within focus and provides a readiness for wider horizons of aesthetic : iderience.

SPIRAL OF LEARNING
Good teachers are constantl) , in community resources which can be used for developing aware, ... ir art. Every community has creators: weavers, woodworkers, Yers, flower arrangers, etc. Every community has interesting arch: . ure; homes, churches, and other buildings which can be studied $!$ peir relationship to historic styles. South Dakota is full of Gothic-inspired buildings. While learning about the art of artists of the community, new civic pride and friendship may develop. As a small child builds his tree-house or his sand table community, or as a high school student creates his dream house, each develops an interest in and a responsibility to the architecture of his time. From this involvement, every building he observes will assume a special signficance for him.

If he is to guide the learner effectively, each teacher must develop his own personal sensitivity to beauty. He must remember that all art forms are structured on design elements. He must point out the importance of line, form, space, color, and texture and the principles of their use in visual language. He must realize that it is through organized form that the artist communicates his feelings and aspirations and he must guide the learner to seek the message in the same way. This is necessary if one is to comprehend the message of a work of art.

We have few museums and art galleries in South Dakota, but their absence does not mean our people are entirely beauty-deprived. Growing up in a variety of natural and human beauty, our young people are privileged. As they grow in sensitivity to beauty, they will have much to take to an original work when opportunity comes.

BEGINNING ACTIVITIES
collect pictures of USUAL TNINGS AND PICTURES EY ARTISTS

BRING EXAMPLES FROM NOME FROM TRAVELS 0 EXNIBIT THEM FOR ALL

CONTACT POTTERS AND PLACE WORK ON DISPLAY OR ERING EXAMPLES OF CERAMICS FROM NOME.

WEAVING EXAMPLES CAN ee combined witn the CERAMIC DISPLAYS.
display sea objects
picture of tne week

CNILDREN'S WORK IS selected ey gloup TO ENCOURAGE TNEM
arRANGEMENTS MADE OF FLOWERS AND WEEDS TO DEVELOP AESTMETIC awareness

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SPIRAL OF LEARNING

EEGINNING ACTIVITIES

DISPLAY TECHNIQUES

HELP CHILDREN SEE THE GOOD IN THINGS THEY VIEW.

POint OUT BALANCE, COLOR, ARRANGEMENT, QUALITY OF PIECES OF SCULPTURE AND CERAMICS, PICTURES, AND OTHER MEDIA.

SHOW CHILDREN WAYS TO MAKE THEIR WORK better for display

STRIVE FOR QUALITY

MAKE USE OF THE SENSES TO CREATE ARTISTIC AWARENESS

## Appreciation... DEVELOPING AESTHETIC AWARENESS

In our fast moving world, original art forms are within reach of every one. Remember: A work of art is an invitation to a partnership between the artist and the observer with the art object serving as "common ground" or "common bond." The observer must be able to identify with the artist's experience. Harvey Dunn's paintings of South Dakota pioneers help South Dakota people to re-live the joys and sorrows, hopes, and frustrations of the early settlers. They make the history of South Dakota come alive. Likewise, the culture of the Sioux Indian is more easily understood through the messages of Oscar Howe's paintings. Similarly any little girl who has played "makebelieve" by dressing up in grandmother's dresses will identify herself with LADY JANE in Bellow's painting.

The classroom should present a permissive atmosphere for growth in aesthetic awareness, and, whenever possible, should be oriented with the world outside. Van Gogh, the man who painted the sun, becomes a friend to every young sun-painter. Color becomes more personal after reading Mary O'Neill's book: HAILSTONES AND HALIBUT BONES. Forms balanced in space provide a good opportunity for the introduction of a Calder mobile. Religious ceremonies of other cultures and areas will effectively motivate the creation of masks on any level and a film on Obratsov's puppets or Chinese Shadow Plays will establish an interest in puppetry as an art form. As young sculptors use wood in organic form, the creations of Moore and Brancusi can take on new significance. We can not justify art education without developing qualitative awareness of art. One is closely correlated with the other.

A good teacher will emphasize the uniqueness of personal expression as he guides the learner to study his works and the works of others. He must show that subject matter is unlimited and media and tools are limited only by the individual ability to conceive new possibilities. Each age and culture must find its own way and erect its own monuments according to the needs of its people and the materials at hand. Art will assist people to live well within their own age.
collect prints of masterpieces. find different artists of various periods
TEACH THEM TO DISplay work properly
makE PICTURE MAT
SET UF 3-D DISPLAY EOXES IN ARTISTIC MANNER DIFEERENT ARTISTS

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## Aperceiation... DEVELOPING AESTHETIC AWARENESS

No visual art form is of greater importance than another. Hierarchy of materials and expression no longer exist. Distinction between the fine and minor arts has been shattered by the recognition of today's artistcraftsman whose concern for the aesthetic has moved many so-called crafts into the category of the fine arts. This is especially true of ceramics, weaving, stitchery, jewelry and wood-working. In the final analysis, creativity is the important criteria to all art expression. The teacher must teach each learner to distinguish between creativity and technical skill and between phoney artificiality and honest expression.

Through artistic awareness, life will be enriched. The artist is enabled to see himself in historical perspective through the immortality of his creation. Understanding the art of the past will always open doors to understanding the art of the present. Therefore, we must not ignore the art of history just because it is old. Too, we must not revive it for the same reason. Education in the arts should help us select the best from the art expression of any age. Often our appreciation has completely ignored the arts of the present time.

Today we are hearing much about improving the face of our country. This is good. To attain a more beautiful America we should plant the seed of beauty in our youth and nurture it to fruition. The natural pattern of growth is up, not down. Beauty, or the need of it, can't be legislated. It must begin with our citizenry. The need for beauty must come from the people. Perhaps this is one of the important goals of contemporary art education in our land. Certainly, an orderly, beautyfilled environment will inspire more order and beauty. Experiences in developing artistic awareness and discrimination give quality to living and:
"These become a part of the child who went forth every day, and who now goes, and will always go forth every day."
Walt Whitman (A Child Went Forth) The Laurel Poetry Series N. Y. Dell Pub. 1959


BEGINNING ACTIVITIES

SAVE REPRODUCTIONS OF ART AND ORGANIZE

USE FILM STRIPS AND
SLIDES - AVAILABLE
NOMINAL RENTAL FEE

LIBRARY BOOKS USE TO FOSTER ARTISTIC APPRECIATION

SELECT COOD ONES maKE THEM AVAILABLE

ARRANGE FOR DISPLAYS STRESS GOOD DESIGN

EXPLOIT THE RESOURCES OF THE COMMUNITY

MAKE USE OF PRIVATE COLLECTIONS. ARRANGE FOR LOAN EXHIBITS

MAKE USE OF SCRAPBOOKS AND CREATIVE HOEBIES

ENCOURAGE PARENTS TO PURCHASE THE WELL ILLUSTRATED BOOKS FOR CHILDREN'S USE

VISIT MUSEUMS OF ALL TYPES BECOME AWARE Of SOUTH DAKOTA ARTISTS IN ALL fIELDS OF ART.


## Eualuation-Grading...

SPIRAL OF LEARNING

A CRITERIA FOR JUDGMENT MUST AE DEVELOPED FIRST IN THE CHILD.
expressions give clues

- I like what l'm doing
- those colors are pretty
- wonder what will happen If I TRY THIS?
- let me do that again


## SELF EVALUATION

BEGIN GROUP ANALYSIS CONSTRUCTIVE CRITICISM TEACHER GUIDE ANALYSIS

- WHICH DO YOU LIKE AND WHY?
- what could you do to IMPROVE THIS?
- how Can we do this in a setter way?
- is there another way?
- is this your best?
- are you satisfied WITH WHAT YOU'VE DONE?
- who can think of other WAYS TO DO THESE?
- IS THIS THE BEST COM. POSITION?
- how do these colors MAKE YOU FEEL?

A good classroom teacher strives to continually raise the level of a child's achievement and develop in the child a desire to do this. This type of teaching cannot be standardized as it must suit the individual's needs. In the first three grades when a child's ideas come rapidly and do not remain for long, when interest spans are short, and when motor skills are limited, the emphasis is more upon the creative process.

The product at this time is a record of the child's growth, his involvement, his level of development. We do not force adult standards upon pupils at this time. We would almost never give failing grades in art since there is no right or wrong way to express oneself. An immature art product reflects the need for understanding of the individual's growth pattern.

Teachers should provide a good climate for work, provide good motivations, introduce orderly procedures to insure good basic foundatons on which to work. Permit the child to work independently until he reaches his own stopping point. Teachers should try to stimulate the child's thinking or activate his passive knowledge so that he is able to go on to a new level that he could not have otherwise reached.

Has he gone beyond discussion and used imagination?
Did he initiate and use previously used techniques?
Did he work independently and try to solve problems?
Was he determined, patient, constructive even if he made errors? How did he react to his errors?

Did he try to correct his mistakes or did frustration result?
Did the child evaluate his own growth through personal comparison?
What was his reaction to group analysis, criticism, and group interpretation?
"Only he whee can see the inusuctle can do the imposable.
R. Maeturthur

## Evaluation-Grading...

Try to accept each child as an individual and grade according to the level of maturity of the child. Example: An immature child should not be failed if he is trying to do his best.

The process of development is more important than stress on the finished product. What happens to the child as he explores, wonders, and creates is far more valuable than the end result.

Grade each child according to his own progress rather than in competition with other students in the class.

Keep up a child's faith in his own ability by being pleased with his work if he has honestly tried hard to express himself. The child's attitude towards work and effort expended are important.

Keep grades a private thing. Do not display art work with the grade showing. Refrain from ribbons or awards that set one child above another below the intermediate level. Display every child's work at some time.

Try to grade according to how well the child expresses his own experience. Often the most creative child will deviate from an assignment just enough to be "different."

Encourage the urge to be an individual. We do not want each child to be a carbon copy of another.

You will find grading easier if you have not used ditto or mimeographed patterns, which limits creativity.

Do not withhold art activities from a child as a punishment for behavior. Avoid last period on Friday as an art time. Use art activity as the need arises.
$\sqrt{ }$ Neatness is not always the best criterion for grading.


SPIRAL OF LEARNING

TRIES EXERTS EFFORT neEdS CONFIDENCE reLIES ON OTHERS shows initiative WORKS INDEPENDENTLY is shy g reserved

UNUSUAL ANALYSIS meETS REQUIREMENTS DOES MORE THAN EXPECTED EAGER FOR EXPLORATION ATTITUDES TOWARDS OTHERS HARMONIOUS

RESPECTS OTHER WORK
USES TOOLS MATERIAL PROPERLY

WILLING RESEARCHER strives for neatness ImpROVES ACCURACY strives for quality

NON-COMFORMIST
knowledge of subject
KNOWS WHAT MATERIAL WILL DO

WILLING TO EXPERIMENT
not overly critical
Careless


## Correlation-Copymark...

The correlation of art with other subject matter can stimulate and enrich the learning situation in both areas. The arts and crafts of past and present cultures give visual proof to historical information. As a meaningful creative activity a correlated art project should provide the opportunity for the student to interpret the correlation in his own way by his own hand. The correlated project should be teacherdirected to inspire a creative response from the student and be designed to provide additional knowledge, in the correlated areas. This gives the students the opportunity to make practical application of $f$ the fundamentals of art learned through creative activities in a good school art program.

Areas of correlation may be numerous and varied depending upon the ingenuity and initiative of the teacher. The combination most used is art and social studies. Both programs are interested in information gained or illustrated through the study of historical achievements in arts and crafts. The artist's work and the trends in art have reflected social and moral conditions, religion, politics, exploration and scientific experimentation. Art must not become so involved in correlation that there is neglect of creative art for art's sake. An art program will be weakened if creative activities are not art centered.

## COPYWORK

Correlated programs can promote false art concepts by encouraging imitation and copywork. This is particularly true in reference to historical materials. Copywork, patterns, ditto work or tracings of another artist's work have little value as art activities. No feeling of pride in personal achievement can come from twenty tee-pees all in a row, all alike, all cut from the same teacher-supplied pattern. He may have followed directions, but he will not have learned to think for himself, interpret information, or to express his understandings.

DRAWING FORMS, SHAPES THREE DIMENSION LINE GENERATIONS CHARTS, GRAPHS, 6 CONSTRUCTION OF gEOMETRIC FORMS.

The art program makes use of expendable supplies, many tools and materials. Students need to develop respect for these media and equipment. They must be readily available and if possible be controlled and handled by children. Provision of storage facilities and organizers are essential to efficiency of operation.

Industrial arts people have a slogan - "A place for everything and everything in its place." Art programs could well adopt this idea. With a little planning one can make, have made, or purchase scissor container, ruler, pan and brush holders, paint containers, etc., which makes the storage of supplies easier.

A:t rooms should be flexible so arrangements to accommodate varying techniques and processes are possible. Art teachers are concerned with orderly appearance - the art room should reflect this feeling. Clean-up after art activities should be assumed by the children. Work atmosphere must be apparent for the classes which follow. The teachers should be aware of temperature, ventilation, and an aesthetic feeling should permeate the classrooms. Have a beauty corner, a display section for arrangements by children.

Teachers fear having pupils set up displays because they will not satisfy the teacher's standards. Opportunities must be provided to pupils so they, with experience, are able to discriminate good or poor displays intelligently. Pupil criticism can help point out their errors or achievements of display arrangements.

In a creative atmosphere work noises will be apparent as children work independently, individually, or in groups. Sometimes all pupils will be learning technique. When mastered, pupils will want to work by themselves. Opportunities of doing work in what pupils like to do should be provided. Art rooms are laboratories for discoveries, aesthetic learnings, and not always fun.


- EEGNNING ACTIVITIES
various kinds of paper, pencils, crayons, pens, TEMPERA, CHALK Watencotors, scissons, RULER, INK, COLOAED PENCILS, IExIE CUTTER

ACID-RESISTANT SINK, CUPBOARDS, CABINETS, talle for ckafts.

ADVANCED ACTIVITIES ALL OF THE ABOVE AND THE FOLLOWING: SKETCHING HORSES LIGHTWEIGHT BOARDS block phint press AND SUPPLIES

COPPER ENAMELING KILN AND SUPPLIES

JEWELAY AND METAL WORK EQUIPMENT

WEAVING - STITCHERY SUPFLIES AND LOOMS

ENAMEL NG.SAW, SOME MAND TOOLS, FILES, AND CARVING TOOLS.


## Ream Management...

CHECK LIST
electrical outlets for special equipment

WImDOW Shades for darkening room to use visual alds

CONTROL OF heat and VENTILATION
prevent extremes in
WARM OR COOL TEMPERATURES
avoid drafts

DISPLA. AREAS
USE DISCARDED MATERIAL
CARDBOARD BOXES, ZIG-ZAG
dISplay arrangements and folding screens

## BEAUTY CORNER

framed pictures, flowers, POItTED PLANTS, ART OBJECTS and weaving. change often

## FIRST AID KIT

USE EATREME CAUTION IF toxic materials are used KEEP AWAY FROM THE YOUNG CHILDREN.

## TEACHER'S DESK

place for convenience student conferences

CREA ${ }^{\top} E$ an attractive, pleasant work atmosphere. Provide furniture and equipment for general and specific need, arranged functionally.

PLi N flexible work areas - consider activity, space for material, the number of students, proper lighting . : avoid glare and cast shadows.

PROMOTE work habits that encourage orderliness and cleanliness stress student responsibility for condition of work and storage area.

INSTALL clean-up facilities - preferably sinks with warm and cold water, or pails. Furnish waste paper containers or boxes of adequate size.

PROVIDE storage space for tools and materials, finished and unfinished art work, and display areas.

USE student monitors for distribution, gathering, and display. Rotate so each student feels the responsibility in his classroom.,

## MATERIALS:

ARRANGE materials and tus'; in orderly and adequate storage spaces . . . put like materials together . . a store near the work areas.
POST instructional notices to stress use and care of special equipment . . . keep in good condition for safe and cifective use.
MAKE materials and tools available for self-service whenever advisable or practical ... label for ease of identification.
PLACE small objects in compartmental drawers or container to avoid clutter and to aid in selection . . . keep materials clean and neatly stored for prevention of waste.
AVOID use of toxic materials . . . if used have emergency first-aid kit on hand . . . check labels carefully . . . provide good ventilation and storage.
ANTICIPATE material needs - have adequate supply for the year's art program . . . allow a fund for unexpected needs.

## Bulletin Beards...

An art experience, for the student, will culminate in the doing or the making of the art work. Most students experience personal satisfaction when their art work is displayed. A bulletin board provides an area for display of student art work.

The display of the art work will be enhanced if consideration is given to the manner in which the work is displayed. Framed pictures can be set off and look better if colored construction paper or backgrounding is used.

Every child should have art work displayed. Favoritism towards some work of students with exceptional ability should be avoided. Bulletin board displays give children valuable experience in design, composition, arrangements, and organization around central themes. Pupils should help plan these displays.

Pictures can be offset with pins, yarns, strips of paper or other material. Mats can be cut and pictures taped or pasted to the backs.

Bulletin boards may be organized in an informal or formal balance. Formal balance implies that material on one side is equal or similar to the other side. Formal balance is usually methodical, quiet, and peaceful, or dignified. Informal balance makes use of the fact that an intense color area of a smaller size will balance a larger area if the color is less intense. A smaller unusual shape will compensate for a larger, more symmetrical one. Informal balance is usually more active and commanding and is more appropriate for a bulletin board.

Dispiays can be discussed, planned and carried out in the most effective way to be pleasantly aesthetic. Too often the use of space available is crowded trying to display too much. Simple arrangements are the best. Grouping of areas is also preferred. Changing often to assure all children an opportunity to have their work on display.

beginning activities

COLLECT MANY PICTURES MAKE YOUR OWN

MAKE SIMPLE GROUPS of arrangements
treat the group as
A SERIES OF UNITS

ORGANIZE THE UNITS

USE YARN TO UNIFY
tRY HORIZONTAL AND VERTICAL GROUPINGS
advanced activities

BACKGROUND CONCERN WATCH EYE DIRECTION
develop central dis. play theme. keep simple

MAKE YOUR LETTERS

CUT PAPER FORMS, ODD SHAPES AS BACKGROUNDS

SMALL PICTURE GROUPS balancing large one

Cloth and corrugated PAPER BACKGROUNDS

[^10]
## Bulletin Boards...

SpIRAL OF LEARNING

BEGINNING ACTIVITIES

MOUNT DISPLAY WORK USE PAPER, CARDSOARD

SKETCH ARRANGEMENT PLAN A GOOD THEME
arrangements as SIMPLE AS POSSIBLE

ADVANCED ACTIVITIES

USE BURLAP OR AN UNUSUAL BACKGROUND
try corrugated free FORM AS BACKGROUND

## THREE DIMENSIONAL

 PAPER FRAMINGTHREE DIMENSIONAL LETTERS WITH PINS

CHICKEN WIRE NETTING AS A BACKGROUND

DRINKING STRAWS AS LETTERS OR LINES GF DIRECTION

THREE DIMENSIONAL display techniques fOR OTHER THAN FLAT WORK.


Uses for the classroom or art bulletin board are many

1. Display informational pictures correlate with other areas
2. Collection of prints, pictures, news and magazine articles
3. Prepare the exhibits for individual or group efforts

Organization of the bulletin board based on good design principles gives the teacher and pupils an opportunity to select, prepare, and make aesthetic arrangements. Bulletin boards create learning sittations, to pupils making the arrangements, and to viewer visitors, parents, or pupils. It is most effective if changed often.

Bulletin boards need to convey a thought, idea or basic theme. The largest piece to be exhibited should be placed in a central focal position, balanced with smaller ones. Keep at pupil's eye-level for ease of observation. Keep them simple, legible and interesting.

Analysis of committee or group display actions, needs to be done to give children opportunity for more effective displays. Bulletin board committees need to be changed often to give every child this valuable experience in arrangement.

SOME TIPS FOR TEACHERS: Margins are important - need balance. Avoid clutter, strive for simplicity; Display fewer items, change often; Try picture of the week approach; Bulletin boards sell your program.

## Use of Nemer Media...



Modern equipment is tough but easy to operate. Let pupils use the equipment. With minimum instruction practically all equipment can be handied by children. "I would like to see more things worn out than rusted out." Dr. D. Colwell

Tape Recorder . . . add headset, a collection of pre-recorded tapes, electric outlet and you have the recipe for excellent self-instruction.

Disc Recording . . . can be checked out. Records include history, music, speech, drama, poetry, oratory, and other subjects.

Film Strip . . . for classes, small, inexpensive, or previewers. One person operation . . . easy to use and are not disturbing to others. Convenient for pupil . . . makes valuable contribution to learning.
$2 \times 2$ Slides . . flexible, can be assembled in sets, sequence, pupil can expand his experiences. Pupil can view them individually, can move from slide to another at any speed they desire.

The Motion Picture . . , films usually rented not owned, expensive. 8 mm Super Loop film cartridge load projector is a possibility within individual use. Easy to handle and operate, with repetitive feature.

Instructional materials are limitless. As more teachers try them many ideas and techniques will emerge. Maps, globes, models, have not been mentioned. Can you imagine examining a globe with a recorded tape . . . A human ear replica or a model of flower parts, etc.

## FOLLOW UP SESSION IMPORTANT AFTER USING ANY EQUIPMENT.

Television . . . has not even been mentioned but when videotape recorders become inexpensive and common, think how video-tape and a T-V set could assist the speech and drama pupil when he can see and hear inimself. The reading accelerator or pacer is another device with application to independent study. If we remain open-minded and receptive to change, watch for real developments. Remain adaptable and educational progress will continue.

EQUIPMENT AND MEDIA
projectors
filmstaip and slide
overhead projectors
STILL PICTURES AND GRAPHIC REPRESENTATIONS

Wall charts or posters AND STILL PICTURES

MOTION PICTURE PROJECTORS 16 mm MOTION PICTURES (SOUND OR SILENT)

SINGLE CONCEPT FILMS Imm SUPER LOOP SILENT

MAGNETIC TAPE RECORDER 1/4" MAGNETIC TAPES

Record player
33, 45, or 78 rpm DISC RECORDINGS
dISPLAY AREA
3-D MODELS - STRUCTURES

T-V IELOSED CIRCUIT, LIVE PRESENTATIONS MOTION PICTURE FILMS VIDEO-TAPE RECORDINGS AND STI'L PICTURES

TEACHING MACHINES AND PROGRAMMED TEXTBOOKS programmed material

SYSTEM COMBIMATIONS T-V MOTION PICTURES aUdIO RECORDINGS language lals STILL PICTURES

[^11]
## Mosful <br> Materials

One can find many free and inexpensive materials along with many discards of the packaging materials which can enrich and expand any art program, especially a limited buidget one.

Use good taste. Be discriminote in your choices. Let P.T.A. groups, or parents, help. Insist materials be clean and in good condition.

Give children the opportunity to organize, identify, and keep material ready in accessible holders.
A. Acetate, ocorns, aluminum foil and pons, apple separators
B. Balls, balloons, bomboo, bork, beads, beans, bobby pins, bottles, bottle cops, boxes, brods, broid, buckrom, buttons, buckles, bulbs of various sizes, buriop, rubber bonds
C. Condles, cans, canvas, cardboord and cardboard rollers, corrugated cards, cartons, cotalogs, cellu: loid, cellophane, celotex, chains, chamois, checkers, clay, clothespins, clothesline, clock parts, cloth, coot hongers, combs, conferti, containers, copper scraps and foil, cord, cork, corn, costume jewelry, corn husks
D. Driftwood, dishes, doilies, tongue depressors
E. Egg cartons, shells, eyelets, embroidery hoops
F. Felt, fishnet, flonnel, floor covering, flour, flowers, fruit jors, fur scrops, fence
G. Gimp, glass, gloves, gourds
H. Hats, hot boxes, hair pins
I. Inner subes
J.-K. Jars (baby food), iugs, keys
L. Lath, lampshades, linoleum, leather, lace
M. Magazines, mocoroni, mailing tubes, marbles, masonite, match sticks, metal foil, mirrors, milk cortons, muslin, meat skewers

Many merchants in your community will, when they know you want materials they intend to discard, save them if only one asks.

Newspapers - gray cardboard separators
Plumber - copper scraps, tin seraps
Furniture - linoleum samples, rug samples, styrofoam used for packing
Hardware - fluorescent tube separators, styrofoam, wire, nails
Dry goods - ribbon scraps, cloth, boxes, etc.

Grocer - Apple separators, posters, display materials, bags, boxes, plastic lids
Hatchery - Egg cartons, boxes
Lumber Yard or Carpenter - Sowdust, insulation, masonite, plywood, wood, nails, wire, etc.
Clothing Store - Hat boxes, shirt boxes, shoe toxes
Paint Store - Old paint, wall paper, sample books
Dentist or Doctor - Used X-ray plates
Parents - Many items can be supplied from home. Items mentioned in most cases are discards. Plastic coffee lids
Drug Store - Empty bottles (clean), packaging materials
N. Nails, netting, newspapers, neekties, nuts
O. Oilcloth, orange sticks, ornoments
P. Poper bogs, boxes, dishes, cups towels, pipe cleoners, pebbles, plastic, pocketbooks, pótatoes
R. Raffio, reed, ribbon, rings, rope, rug scraps
S. Sond, sondpopcr, sowdust, sea shells, sealing wox, seed pods, seeds, sequins, sheepskin, shoe loces, snops, soop, socks, spaghetti, spools, steel wool, string, stones, sticks (popsiclel, straw, sweaters, styrofoom
T. Tacks, tape, threed, tiles, tin, tinfoil, sissue, sooth. picks, tooth brushes, twigs, twinc
W. Wall bnard, woll poper, wallpaper poste, wax, wire, wire mesh, wood scraps, wool, wooden beods, wood blocks, wooden crates, wood dowels, wrapping poper, X.ray plotes, yarn, etc.

ORGANIZE WHAT YOU GATHER
If not used in reaconable thme discated is.

## Finger Paint Pecipes

1. $1 / 2$ cup dry lcundry storch $\quad 11 / 2$ cups beling werer $1 / 2$ cup socp fiokes $\quad i$ toblespocn gly:erne
Mix starch with a littie coid water untid discoived and smooth mix in the soap flakes and glycerine and odd dry powder point for color.

$12 / 3$ ctp cold mixed with 12 r.in ficur id ' a cop $w$ :er mix to seft dogh corre is odded tw dy ingrectemt. mix acn we vegethen acomg of de powder point Use the cicy
2. I pint woter

4 tablespoons dry starch
Mix a little water and starch to a poste Boll pint of woter and add to the paste cook slowly untul clear cool add powder color
2. Mix a cup of powdered asbestos with tecspocn of powder paste plus encugh water to make soft dough Use os cicy dry peint with temperc or ename!
3. Mix 4 toblespoons solt and 2 tabiespoons cornstard: Pour 4 toblespoons boiling woter cier this and stir tull smooth Ploce on stove, stir tili mixture forms sma:i boll in pon knead, wrop in wax poper piace in closed jor to keep morst till needed
4. I cup cold woter - 4 cups boiling woter - 6 toblespoons carnstorch - 4 az glycerine - I tablespoon alum : color

Mix cornstorch with cup of cold woter odd 4 cups boiling woter cook until thick (stirring) glycerine and olum odded after removing from heat Pour into jars, add powder paints FOR ROUGH PAPER
5. 6 cups cold woter
$11 / 2$ cups wollpoper poste oil of cloves or wintergreen
Pour $11 / 2$ cups wollpoper poste into 6 cups woter slowly while mixing and odd $1 / 2$ cup soop flakes Add preservotive, either ail of cloves or wintergreen For colar add powder paint Makes lorge quantity
4. Make o smooth poste with 6 tablespoons thour and 3 toblespoons woter Put 4 toblespoons solt in a pan over low fiome till it snops ond crockles, stir constontly stir hat solt into flo.ir paste kneod till smooth Store in covered for Con be pointed, vornished, etr
3. I cup storch - I pint cold woter - I qt boiling woter I toblespoon socp flokes
Mix starch and cold woter till dissolved odd quor: of boiling woter and cook until thick stir constontly odd soop flakes and place in jors odd color in jors
6. I lb box gloss starch - I cup soap flokes - 4 ats woter $1 / 2$ cup toicum powder and powder point
Mix together in a kettle to cook until clear Add the preservative - oil of cloves or wintergreen, and odd powder point If fragrance is desired, odd cologne
6. 2 parts toble sort mixed with I port flutr Mix add woter to a dough-like consistency if celor dessred odd dry powder or food colaring break off in smoll preces ond form into beads pierce with toothpicks and allow to dry Bead formula for inexpensive jewelry or relief mops
7. $11 / 2$ cups loundry storch - 1 at bailing woter $11 / 2$ cup soop flakes - $1 / 2$ toblespoon powder point
Moke paste from storch and cold woter add boiling woter and cook until mixture is clear, stirring well, prevfent lumping. Stir till evenly distributed Add point into mixture, ploce in $1 / 2$ pt jors ( 8 needed)
7. 2 cups sowdust - 1 cup Ploster of Poris $1 / 2$ cup wallpoper paste and 2 cups cald woter the moterial should be shoped into a farni - like milk cor. tons and allowed to dry before carving corton is cut owoy use knife o soft corving moterial

## Carving <br> Mixes

1. 2 ports vermiculte, 1 port sand, 1 pert cement or ploster If milk corton is prostic cooted cpply rocting inside corton with wax or veseine Pc..r mixture int: carton Eosy to carve

## Paste Mixtures

1. Mix to a smocth pacte 1 - ip flour with rap roi a ter Add 3 aps boing water, let mixhire bet it in: Pat thro gh steve To keep, cdd tespenen c..m or at of cloves
2. 2 parts vermiculite mixed with 1 part oi Plaster of Paris (dentist or lumber yard or hardware store for the builder type ) Pour mixture into old milk cocrtons Allow to dry, cut oway after mixture dries heats when setting corve into farms
3. $3 / 4$ cup water with I cup flour man in o doube botler grodiolly add cu' woter cook, stir constintly codd teospoon of borie ceid of all of cloves or $1 / 2$ tecspoon powdered alum
4. Modeling cement mix I part Portiand cement with I port osbestos cement and I part powdered clay. sieved mix with water till putty-ike used quickly ofter it sets you shall hove to corve it form shopes and carve
5. Mix cup fiour to smooth paste with cup of rold water add 3 cups boling woter cook till thick stran add teospoon olum to keep from hardening 5 drops wintergreen gives pleasont odar, keeps peste swee: longer
6. Mix 4 cups flour with 2 cups coid woter ta smooth paste add 4 cups boiling woter, cook ti!! thick add 302 glycerine Stroin, odd toblespoon alum add 8 drops of wintergreen or peppermint pour into jors
7. Check lumber yord for Grill Block $\$ 50$ Block Featherstone 25 lbs for $\$ 500$
Inexpensive corving block 20 lb (obove)
Golesburg, Illinois, PO Box $1267 Z_{\text {Ip }} 61401$
8. Mix 4 heoping tablespcons flour in enough cold woter to make o creamy mixture odd woter, o little ot a time, till no lumps set over low fire, stir constontly tull thickened, well bailed Recipe mokes quart of paste, jelly-like consistency when cool ferments easily - slow drying
9. Librory paste Mix 2 toblespoons minute topicxo, 3 toblespoons sugar, 1 teaspoon vinegor, pinch of solt, with I cup boiling woter Cook in dauble boller till thick Reody when cool store in coeres jors in cool place
10. $1 / 2$ cup flour, sifted, ta 2 cups cald water add slowly till smooth paste is farmed stir Cook siowly till clear use low heat
11. Pour 5 cups boiling woter into paste mixture of cup fleur, 2 teospoonc alum, 3 drcps all of cloves

## Fixatif Sprays

Fixatifs help preserve the surfaces from smear. ing and rub offs May be applied with insect sprayer, mouth sprayer, atomizer for use on charcoal, chalk, pencil

## Papier Mache Mixes

French term for mashed or pulped paper Used for modeling material, inexpensive has high shrinkage

1. Dissolve Gum Arabic to the ronsistency of than crecm, and use as above
2. Mix 6 ports of methyl aicohol with I port chellac (Clean after uing)
3. Popler Moshe pulp th make everj smoil figures, Tear newspopers into small bits Ploce into pall, cover with water, sock overnight Squeeze o." sooked paper Con be straned through sieve add paste 'o form adhesive mass Madel as clay - dry
4. $1 / 2$ galion of alcchol with 2 oz paste mix and use $\%$ above
5. Mix I cup worm water with 2 tablespocns of white glue if quantity not sufficient, dable or tripie quantity
6. I port clay powder with 1 port ccicimme 2 parts water mixed to form a thick poste knead in torn preces of paper Form like ciay allow to dry paint ofter drying preserve with shellor
7. 2 parts denatured olcohol, I port white shellac Shcke well before using Clean sproy equipment ofter using will clog
8. Buttermilk thinned with water until a spray consistency hos slight sour odor
9. Hoir spray works well use in ventiloted oreo Coution children owoy from sproy streom Precoution - inflammoble
10. 1 part clear locquer, 2 ports lacquer thinner Precoution - mixture inflammobie
11. Teor newspapers into i ang strups, $1 / 2$ to 1 inch width dip strips into prepared mixture Wheat paste need not be too thick place strips on prepared form to moke thickness of several teyers ailow to dry finish with cocting of paper towets smoother to point
12. 2 oz gum orabic dissolved in hot water overnight and used next doy moisten surface of paper with solution, ollow to dry, then sketch choik picture (from Americon Croyon Compony)

Forms to be made for use in papier mache work can be wadded newspaper thed. or rolled preces of paper tied in place to form an armature balloons can be used to shape forms Pre-designed clay forms also used

Look for a large box, not too deep, for placing pictures in to be sprayed. keeps the spray from going over everything . . Ventilation important on many sprays . . Experiment for best distance. I foot good. . try for even spray

Bowls from home, with gently sloping sides, can be used as a basic form so cootings can easily be slipped off. Bowls make funny hats Excellent to use where children need modeling experience where limited budgets exist ${ }^{\text {. }}$

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## Miscellaneous <br> Formulas

PARCHMENT PAPER . . Brush surface cream mont paper with burnt linseed all, brush bock with turpentine Allow to dry

## Odds and Ends

PASTING TIP . . . piste should be ip te it in the $\mathrm{m}_{2}$ : it of two pieces to be posted to m... th pint t w. cause smearing and cause spots or da-corathe"

TRANSLUCENT PAPER . . . 2 ports turpentine, 1 part linseed all brush or wipe the mixture on paper and allow to dry
SANO STUCCO . . . o istle fine send mixed into temper paint when o textured roughness desired settees out stir often.

PAINT OVER WAX or plastic surfaces pict add a few drops of detergent to the point mini., se si" stick to wax, plastic, etc

STRETCH YOUR PAINT . . . Tempers ic id joint is thick, bighiy pigmented works best when it :s mixed, and diluted oimost half and hats

PLASTIC FOAM . . \& 6 tablespoons plastic starch, I cup dry detergent, odd powder color mix water to creamy consistency . for Christmas arnoments

WOOD STAIN . . . rub wax crayon up and down the wood groin polish with cloth slightly saturated with turpentine

PRESERVING FALL LEAVES . . . ploce diternote layers of powdered borax and leaves in a box the leave; must be completely covered allow to stand for four days then shake off excess borax and wipe each leaf with o liquid floor wow Leaves con be pressed with warm iron

PAINT FOR GLOSSY SURFACES . . . hquid detergent or few drops glycerine mixed with tempera point Sticks to plastic, aluminum foil, etc

SILK SCREEN PAINT . . . odd powder tempera to bottled cornstarch, mix to creamy consistency wheat paste is used in o similar way to starch

LIQUID STARCH FINGER PAINT . . . pour toblespoc: liquid starch in the center of o sheet of dampened paper add small amount of powder point shover cons or salt shakers ore convenient to use Work the color and starch together and spread this method one need not prepare large quantity and children do the mixing

CRINKLE PAPER . . . wet piece wropping Doper both sides, point dabs of color, crumple, open, let dry repeat and dry . press with worm tron

SYNTHETIC OIL PAINT . . . odd dry color to smooth wheat paste apply with stiff brush

CHRISTMAS SNOW . . . 2 cups of water, 4 cup: , $x_{1}$ flakes mix with electric mixer or beater to mole thick suds spoon soap suds on to tree they dry quickly, remain indefinitely Sprinkle extra simp flakes on the snow before set

From Forgo Public school Guide, Forgo, North Der who

EASEL PAINT . . . Mix tablespoon cornstarch and 2 table. spoons powdered detergent with tempera point add water, mix thoroughly . doesn't run or drip
SOAP FLAKE SNOW . . . Use Lix or Ivory Fiokes, odd small amount boiling water, beat with electric mixer or hond beater to make fluffy snow

MARELE PAPER . . . shove scraps of old croyens into small amount of turpentine - allow to sock till crayon dissolved pour mixture on top of large shallow cookie pan filled with water Ley Doper on 100 of this mix carefully and remove dry mixture con be stirred for beautiful effects Enamel point con be used in a similar manner

HOLEY CRAFT PASTE . . . $1 / 4$ cup cornstarch and 3/4 cup water, 2 tablespoons corn syrup, 1 teaspoon vinegar in medium sized soucepon Stir constantly over medium heat Stir onother $1 / 4$ cup cornstarch into $3 / 4$ cup water till smooth immed irately stir, o little of o time, into the thickened mixture . . stir smooth each time oil of wintergreen to preserve - thickens on cooling

THANKS TO . . .
Dis Koines Publar School Guide 1956
Denver Public School Guide
Forgo Public School Guide
Sioux Falls Art Teacher;
Many sources unknown

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ADVENTURES IN STITCHES CREATE WITH YaRm Creative use of stitches Creative textile desigem decomative wall hangings fewer stitches more adventure MORE TEXTILE DESIGM stitches of creative emsroidery WEAVING WITHOUT A LOOM

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ABSTRACT - A simplified version, not reolistic or representofionol

ACCENT - Tie specific oreas within a composition which ore given greoter emphasis by the use of more intense tone, size change, or other means which exoggerote these specific ports

ACETONE - A sol_hit for plostic
AESTHETIC - Pertaning to the study of vesthetics, the science or theary of the beoutiful

AGGREGATES - A medium for building, corving, or moulding mode from a combination of vorious moterials

AQUEOUS - A solution cortoining woter.
ARCHITECT - One skilled in building design ort
ARMATURE - Frome work of wire, wood, or other materiol used to support modeling substonces such as clay, papier moche, or plaster
$\therefore$ 'TIFACTS - Products of humon workmonship which usuolly constitute on element of moteriol culture or product of humon primitive ort
BALANCE - A visuol impression of equilibrium between all interactive parts in a work of ort
SYMMETRICAL - Formal, equal distritution of ort ele-
ASYMMETRICAL - Informal, unequal distribution of ort elements, visuolly pleosing
RADIAL - equolizotion from centrol point os in o wheel
BALSA - A strong, light wood ovoiloble in strips or blocks for corving, construction, model or colloge making
BAS RELIEF - Sculpture in low relief, projection from background is slight
BAT - A flat slob of Ploster of Poris used in cloy modeling
BATIK - A method of creoting colored designs on fobric by cooting oreas not to be dyed with wax

BIT - A tool used with o BRACE for drilling holes
BLOCK PRINT - A print from engroved wooden plote
BRAD - A thin nal with small head, finishing noil
BRAYER - A hard rubber or gelotin roiler used in priming spreod ink over a surfoce
BURNISH - Tc moke smooth by rubbing or polishing
BUTCHER PAPER - A glossy poper which usually comes in rolls, for murals

CANVAS - A coorse, heovy cloth of hemp, linen, or cotton used as a surfoce for oil pointing
CALLIGRAPHY - Relotes to beoutiful writing and fine brush work, particulorly applicable to Chinese ond Japonese

CARTOON - A prelıminory drowing for a murol, comicol drowing

CARVING - The oct of designing by cutting owoy ports of o surfoce of stone, wood, ploster, soop, or similar moterial
CENTER OF INTEREST - That port of o composition whirh is the filst to ottroct ottention, the part which the ortist wishes to express most furcefully This can be done through color, size, orrongement, etc.

CERAMICS - A term used for objects which ore mede of rluy and fired in o kiln
CHISEL - A tool used to cut wood, stone, or met.:
CLAY TERMS:
BISCUIT - Unglazed pottery first firmg
ENGOBE - Colored slip which produres non-glossy, nonrunning finish on pottery

GLAZE - Tronsporent or opoque surfoce finsh opplied to ceramics or metol

GREEN WARE - Unfired pottery of cercmics
KIL.N -. Gas, electric, coal, or other heated furnace or oven for firing ceromics
SCRAFITTO - Scrotched design through engobe cooted cloy surfoce

SLIP -- Thin, wotery, cloy used as o paste or poured
WEDGE - Process of cutting and pounding to remeve un bubbles from cloy
COLLAGE - A method of posting various materials such us clath, wood, poper, and scrops, into visually pleasing form

COLOR, CHROMA or HUE - Diffused wove lengths reflected on a surfoce

There are 'wo color mixing processes
ADDITIVE -- Light interocts with light to form other colors When odditive primaries ore mixed in opproprote omounts, they produre white light

SUBTRACTIVE - Light interocts with colorant link point, dye, filter, etc), which filters' aut, or subtracts some of the cclar from the white light leaving the other colors to be seen b; the eye When mixed in preper proportions. they moke block
COMPOSITION - The arrongement and orgonizotion ct parts in a unified, sotisfying, whole
CONTINUITY - The rhythmic relotion of ports of a design to each other to give a sense of unity

CONTOUR - A line drowing showing external : torocteristics or boundories of a shope or form
'ONTRAST - To shnw o noticeoble difference when com pored side by side

COPING SAW - A small hand sow to cut eircular or irregitoi shopes in plywood, mosonite, upson board, or heovy cardboord

CONVERTIONAL - A stylized treatment of noturai form: conforming to accepted stondards of appearance

CROSS-HATCH - To stade with crossed serias of porcliel lines
DAMP BOX - A zinc lined, tight box hoving plater bottom and shelves which hald maisture to prevent stored cloy or unfinushed clay preces from drying cut

DECOUPAGE - The ort of decoroting surfaces, with poper, ond cut out pictures The decorated surfoce is usully vornished for protection

DESIGN - A skilfut ordering and buiding of artistir thought to moke a pleasing visual expression with ort media ELEMENTS - Line, form, spoce, texture ond color PRINCIPLES - Bolance, hermony, emphosis, varety and unity
DIORAMA - A stoge-like scene in third dimension
DISTORTION - Alterotion of naturol shopes and surfores of a form
DOWEL - A thin pole of wood ovalable in groded dicmeters
ELEVATION - A drowing showing the sides of a buiding nof in perspective
EMBOSSED - Potterns in relef which con be seen os well as felt
EMPATHY - The projection of one's perscnality into the object oí contemplotion, o feeling into
ENCAUSTIC - A process of pornting using wax coicrs fixed with heot

ENGRAVING - The process or prodirt of incising metol or other surfoce with o shorp tool
ETCHING - The process or product of engraving a design on a copper (zinc) plote by meons of oad From this , "print" is mode

FIXATIVE - A thin vornish spray used to keep a drowing from smudging
FOCAL POINT - A point or spot of interest where the observer's eye rests, a point of conversion
FORM - The finished ort product os it appears ofter the ort elements hove been orranged A sculptured or three dimensionol shope
FORE-SHORTENING - The opporent visuol compression or distortion of forms to indicote depth in spoce
FREE FORM - A shope with no fixed or rigid toundory
FRESCO - A pointing on wet plaster in which the pigments become incorporoted with the ploster
FRIEZE - A continucus pattern (usually ornomentcl) bond or trimining, sculptured or painted
GENRE' - Compositions which emphosize themes of domestic everyday life
GESTURE - A scribble drowing ropidly dene to depict the action of on object

GOUACHE - Referring to the process of pointing with opoque woter colors
GOUGE - A chisel mode with a groove down its center and used for scooping or cuttting a groove
GRAPHIC ARTS - Drowing, painting, piinting. Arts which pertan to representotion on a flot surfoce (Including letteing, posters)
GROG - Previously fired cloy bits added to plostic c coy 10 keep it from sogging while moist, to keep it from worpirs while firing, and to odd decoration when added to cloy of onother color

GROUT - Cement-like substonce (marble dust) ised to fill spoces in mosaic.
HARMONY - Occurs when oll the art elements hove been orgonized into o visually pleasing relotionship ${ }^{-4}$

HAPTIC - Type of urt expresum : re .i: . . mdnath:. body cenjetions and sapertase eremen's wh in im e. emoticnal feeling
HIGHLIGHT - The inghtest pot in a deratnc of c. pintino A spot or spets produced by the refe-inn ne inint
HORIZON LINE - An imoginary 'iee it the cre eve of the obscrier where aky and ecrth 'ferm in meet

ILLUMINATION - Brimant rolors, mimatare de min that odorn books, manuseripls, and letters
ILLUSTRATION - Referring to on ort prodir it paces where story content is evident
ILLUSTRATION BOARD - Hecty rciobourd whit: finch, used for posters, etc
IMPRESSIONISM - A style or movrment in art to portroy effect or "impression" recenved at firat gionre pansma rendered in broken color technaque
INCISED - To cht into or corve o design beick the surtore lew:
INTAGLIO PRINTING - The cpucsitc of remef prodiad from engroved or incised surfoce

INTEGRATION - Linking on ort experience to amether wh. ject area in o curriculum The minghing of design dements for unity
IN.THE-ROUND - A free stonding three dimensur not chje ${ }^{-}$: to be viewed from four sides

LEATHER HARD - Cloy thot hos dried suffietently so thot it will not bend but ha; eno ghi mosture in it so that it will not crumble
LINE - A mork mode by a moving point
LIP - The top edge of a vose
LITHOGRAPHY - A process of printing from o chone or prepared metel plote involving the use of a grease s: yyon ond ink
LOST WAX PROCESS - A method of ecsing in metol those objects which have been mode from clay or other plortir moteriol
LOWER CASE LETTERS - The smail letters
MASS - A combinotion of forms withon o werk of ert to moke o lorger body
MARIONETTE - A string puppet
MAT - The surrounding oreo betwcen a picture ond frame
MEDIA - Art moteriols (singulor) MEDIUMS
MOBILE - A honging, three dimensional design which has moving ports

MODEL - A miniature reprodiction of a form
MOLD - A hollow shope mode of ploster, metol, wood, of plastic in which objects are cast or formed
MONTAGE - The gluang together of parts of representotional pictures to form a new pieteriol image
MOOD - Siyle or monner giving o dominant emational character
MOSAIC - f.n mbard design of glass, tile, or other materal (tesseroe) planned by juxtoposition
MOTIF - Center or dominent theme or feature

MOVEMENT - The oction lines within on object The sight direction in o composition as implied in reloted ortions within objects ond from object to object
MURAL - A lorge woll panting telling o story
NATURALISTIC - Resembling noture
NON-OBJECTIVE - Art expressions of pure design form with no relotion to noturol objects

OIL. PAINT - A pigment in linsecd, poppy, or nut olt
OPAQUE - Heovy or non-tronsporent
ORGANIZATION - Relotionship of ports to eoch other and to the whole

ORIGAMI - Joponese ort of poper folding Forms hold their three dimensionol shope without use of odhesives ond no cutting is involved
OUTLINE - A line used to describe the contour shope of a form

PAPIER MACHE - A process ond o product of paper (newspoper) ond poste or sizing

PARALLEL - Equolly distont lines, surfoces, or directiono lines

PASTELS - Ground pigment with gum orobic in chalk-like form Colors often tinted in oppeoronce $A$ light volue
PATINA - A film produced by oxidotion on cepper, bross, bronze, ond other moteriol Mellowing or softening by oge

PATTERN - An oreo or group of recurring lines, shopes, colors, textures within o design or composition

PERSPECTIVE - The ort of creoting on illusion of depth on o two dimensional surfoce A visuol method of drawing objects os they oppeor to the eye
PICTORIAL - Notural objects arronged occording to the ort fundomentols to produce o picture

PICTURE PLANE - The surfoce on which the ortist drows or points.

PIGMENT - Powder or substonce prepored by mixing with liquid os o point

PLANULAR - A designed composition constructed of two dimensionol plones

PLASTER OF PARIS - A modeling moteriol which is o composition of gypsum used for molding ond costing ond moking pottery molds

PLASTIC - Noturol and synthetic moteriols copoble of being molded or modeled
PLASTICINE - Modeling cloy which hos teen mixed with oll to prevent hordening

PORTRAIT - Likeness of o person
POSTER - An ortistic eye-cotching notice made to sell on ideo or on event

POSTER PAINT - Opoque point in dry or liquid form sutable for classicom use

POTTERY - Pots, dishes, voses, etr, mode from cicy and shoped white moist ond heat hordened

PROPORTION - Moy refer to size relotionships withun o work of ort or may refer to quentities of tones or colors

PUPPET - A small onımoted figure

RADIATION - Divergent lines, forms, or colire emondting from a central point of interest

RAFFIA - A palm fiber used in weoving ovalab'e in mony colors
REALISM - The representotion of things os they oppeat in noturol form.

RELIEF - A censtruction where potterns profert obove o borkground surfoce

RENDER - To depict in on art form, moterna, tehnique or process
REPOUSSE' - Metol work in which the design is hammered into relief from the reverse side

REPRESENTATION - The visuol expressicn of on ideo, emoticn, or situotion

RESIST - The use of wox or grease to cover or protect orcos from the opplicotion of color woshes or dyes
RHYTHM - An ordered movement mode by the repetition of pictoriol elements

SATURATION - Greotest intensity of o coior
SCORE - To mark with on edged tool
SHADE - A colcr volue ochieved by odding the complement of block to o bosic color
SHAPE - Geometric or free-form in dimension defined by outhe or controst

SILHOUETTE - A profile portroit of any form showing the shope as a solid moss controsting with bockground color

SILK SCREEN - Methad of reproduction, rolor forced through salk or other fobric

SKETCH - A rough outime of on object or o stene A free droftung of on ideo or design

SOLUBLE - Copoble of being dissolved or iqquified
SPACE - The omount of surfoce upon which o design is ploced or the oir moss within which o design is ploced

SPECTRUM - Bond of colors derived from wave lengths of light when seen through o prism or other reffective maternal

SPLATTER - A texture shoding orhieved by flicking point from a brush to cover a surfore with irregular drops

STABILE - A spare design which hos no moving ports, werolly mounted on a bose

STILL LIFE - A combinotion of objects, surh os bocks, frunt voses, etc, thot the artist arranges ond uses os subject motter

STIPPLE - A texture shoding or broken color ocheved by pressing the tip end of o drowing or painting tool to the surfoce A flat or square tupped brush or textured moteriols, such os, a sponge ${ }^{\text {, or crumpled picce of poper }}$ moy be used

STYLE - The monner in which the individuol ortist opprooches his work, his porticulor monner of working, opplying to o surfoce pigment, corving, modeling, weoving, etc How on ortist works

SYMBOL - Something which stonds for or represents on octuol image or idea

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Glossary of Ant Terms...

|  | TRANSLUCENT - <br> TRANSPARENT |
| :---: | :---: |
|  | .1..... |
| TEMPLATE - A, *•ror : d. $\quad$ : •••• ir eer mir ir in remer forms | TWO DIMENSIONAL - A . ... |
|  |  |
|  | UPPER CASE LETTERS - * $\cdot$, |
|  | VERMICULITE - $\because \quad \cdots$ |
|  <br>  | VISUAL - $\cdot \cdots \cdot \cdot \quad \cdot \cdot ;!$ |
|  prate | VITREOUS - : . . . . m : |
|  | $\cdots \cdot$ |
|  a predeminance |  |
|  At, rameneme cres | WARP - |
|  sirte: -f - ritened mien: |  |
| TOXIC - Fimeries |  |
|  Dast | WOODCUT - |


TRANSLUCENT - : •r ..... ....
TRANSPARENT - .. . : . . . $\quad . \quad$.
TWO DIMENSIONAL - A . ... .
UPPER CASE LETTERS -
VERMICULITF - $\because$
VISUAL -
VITREOUS -
VOLATILE - $\because \cdot$.
WARP -


WOODCUT -: . . . . . A . . ...........

## Modeling Clay ...

Modeling is a process where three dimensional forms are constructed by manipulation of pliable plastic or plastic-like materials.

## CLAY

Beginning clay experiences in modeling are manipulative activities closely related to the exploratory scribbles and blobs of beginning drawing and painting. The plastic material encourages squeezing, punching, gouging, rolling, and other manipulative motions to develop muscular control and coordination.

- Parts, planes, and appendages of objects and figures can be pulled, squeezed, and shaped out of a single ball of clay. The technique is usually chunky, bold, and expressive with little attention to detail.
- Another manner of modeling is to form all parts separately and to weld them together.

Control is used in the shaping of parts and the description of detail.

- More advanced activities may combine the two approaches.

The piece can be brought to a high finish by smoothing and modeling with fingers and wooden sticks or by scraping or texturing with wire cutters and scrapers.

Non-hardening clays are excellent and economical for beginning experiences. The material may be re-used as much as desired.

Self-hardening, oven fired, and kiln fired clays may be re-used in storing in a damp box until needed.

Advanced activities in modeling are more rewarding when the piece can be dried or fired and painted or glazed as a finished product.



## Modeling - Plaster, Metal, Wax . .

## plaster of paris

Mix a small amount of plaster that can be applied before the material begins to set-up. A few drops of vinegar will slow the setting-up process.

Build or model by adding layers with a brush or spatula or by pouring or dripping.

In-the-round objects may be built from a base of hardened plaster or from a wire or cardboard armature as a skeletal structure of the object.

Reliefs may be built on a plaster slab or cardboard base. Three dimensional shapes may be glued to the cardboard to establish design and to aid in producing thickness of form.

A commercial product which is a cloth impregnated with plaster is available. It may be dampened and shaped without a core base or it may be draped over or wrapped around a mold or wire armature.

The surface of the dried plaster may be left rough or it may be sanded smooth.

Decorative or descriptive touches may be carved or scraped into the dried piece.

## METAL

Liquid metals may be dripped, poured, or applied with a brush or spatula to a solid armature.

Though it must be used with caution, lead is the easiest metal to use because it melts at low heat. Lead in the form of solder may be used with a soldering iron. Some carving and scraping may be done for descriptive details.

New commercially prepared liquid metals that air dry are useful because they may be worked without heat. They are slower drying than other metals and modeling effects can be more controlled.

## WAX

Paraffin, beeswax, scraps of wax crayon, and candles may be melted and used for casting or drip modeling. Drip wax over an armature or solid base. A soldering iron gives controlled heat for wax dripping.

Use hot wax with caution.

## Modeling -Clay Preparation...

Commercially prepared clay may be obtained in various types and forms - self-hardening, sun fired, kiln fired, non-hardening; moist or dry powdered.

Clays that are self-hardening, oven fired, or sun fired produce objects of little durability. Such objects can be painted as decorative pieces not subject to excessive handling.

Non-hardening clays are plastic in nature and may be re-used as often as desired. They provide manipulative experience for beginners in modeling. Such clays are especially good for mold making as a base form for plaster mold or papier marche modeling.

Fire clay for kiln firing affords the richest experiences in modeling. It can be adapted to a greater number of end products because of its durability after firing.

The clay may be purchased moist, ready for use; or dry. The dry clay is more economical though it takes preparation time before use. The clay must be mixed with water, allowed to age, and then wedged.

Wedging removes air bubbles that might be in the clay. If not removed the air bubbles might cause the piece to explode in the kiln.

Wedge by -

- Rolling clay in balls the size of tennis balls, cutting through the center of the clay ball with a wire, pressing the two halves back together forming another ball, and repeating the process until no air bubbles are visible when the clay is cut through. A number of balls can be prepared and stored in a plastic bag until needed for use.
- Slapping or pounding a lump of clay on a porous plaster block until air pockets are squeezed out is another method of wedging.

Native clays may be obtained along roads or streams or in diggings for basements of buildings in most localities. This must be soaked in water, strained, allowed to settle, the excess water poured off, and the clay allowed to stiffen to a workable consistency.


## BISQUE FIRING

- First firing without glaze may be done with pieces touching and stacked in any position.
- Heat kiln to evaporate moisture. Fire to temperature recommended for the type of clay.
- Turn off kiln when correct temperature is reached.
- Let the kiln cool twelve hours and remove bisque ware when cool.
- Use pyrometric cones placed where they can be seen through the peephole. Use three cones, two which will melt before the highest firing temperature is reached. This will give ample warning against over-firing.


## GLAZE FIRING

- Load kiln with each piece placed on separate stilts and without touching each other. This prevents pieces from sticking to the kiln shelf or to each other.
- Check firing instructions carefully - do not over fire or glaze will become fluid and run.
- Use pyrometric cones to give ample warning on firing.
- Allow kiln to cool for twelve hours before removing pieces.
- If glazed piece is unsatisfactory, it may be glazed and fired again.
- The shelves and kiln floor must be washed with a kiln wash before firing to prevent glaze drippings from sticking and damaging the surface.

PAGE 4 3D RIGHT POCKET

## Modeling - Pottery ...

## PINCH POT

A small bowl or pot may be shaped from a ball of clay by using the thumb and fingers and palm of hand. Work thumbs into center of the ball to make an opening. Press down and out to enlarge opening and pinch clay between thumb and fingers until wall of bowl is desired thickness and height. Rotation of clay during pinching process will be necessary for uniform thickness of wall and shape of pot.

If clay becomes dry or begins to crack, moisten with water and continue forming or moisten and reform ball and start over.

After size has been determined the bowl can be shaped into round, oval, triangular, square, or irregular shapes.

A shallow bowl may be shaped from a slab or ball of clay pressed against the palm of the hand.

When dry, scrape a foot on the bottom or rotate the bottom on sand paper to establish a flat base.

## COIL FORMS

Bowls and vases of any height, width, and shape can be made by the use of rolls or coils of clay.

For a base, prepare a slab and cut to desired shape or roll a coil of clay into a flat spiral of desired size and shape.

Roll out coils of clay and cut long enough to go around the base. Add coil on coil, weldirg firmly together until desired height is reached.

Allow coils to become firm before adding additional ones. This prevents sagging.

The shape may be made wider or narrower by using longer or shotw:i coils.

The cuils may be left as a textured design or they may be smoothed together to give the object a flat surface.

Allow the piece to dry slowly under plastic until clay appears light. Remove plastic and continue drying at room temperature.



## Modeling - Pottery...

## WHEEL THROWN POTTERY

The procedure for making pottery on a kick wheel or motor driven wheel is difficult. It takes much practice and steady hands. Mastery of the technique is rewarded by the symmetry and perfection of the finished object.

Select a ball of clay that is softer than that used for other pottery processes.

Center it on a plaster bat on a rotating wheel. Form hands into a cup. Lower the locked hands over the clay ball touching it lightly. Squeeze it with slight pressure forcing the clay into a cone. Release and wet hands and repeat until cone of desired height is obtained.

Place right hand on top of cone, left hand on side supporting right hand. Press down with right hand controlling sides of cone with left until cone is reduced to a short column.

Wet clay and hands often during process while raising to a cone and reducing to column three or four times.

When clay is centered, place nails of thumbs together. Begin to press down in the center of the clay, keeping fingers on outside to control the shape. When the thumbs have made a hole to within one inch of the bottom, pull apart slightly to enlarge center hole. Insert the left hand into the hole and place the right hand on the outside. Work the middle finger of the left hand from the center of the bottom toward the right wall until the left middle finger and the right middle finger are opposite each other. With gentle pressure draw both fingers upwards. Keep an even tension on each side of the wall until the fingers come together at the top. Wet hands and continue raising the wall slightly each time until a column the desired height is obtained.

The piece can be widened at the lower part by increasing the pressure of the left hand. Higher on the vase the neck may be made smaller by increasing the pressure of the right hand. The lip may be formed by holding the thumb and first finger of each hand together to smooth it.

Allow the piece to dry overnight under a plastic cover. When firm enough, remove from plaster bat by drawing a thin wire between base of piece and the plaster.

## Modeling - Slab Bowls...

## - SLAB BOWLS

A shallow bowl may be made from slabs of clay. Place a portion of clay on a piece of oilcloth. Place two laths, spaced according to desired size of slab, one on each side of clay. Roll clay with rolling pin to level of laths.

If clay cracks, form into a ball, add water, and roll again.

- RIPPLE BOWL

Place pattern of desired shape on slab and cut around it with a knife. Remove excess clay. Make balls of clay to size of desired ripple, space evenly around shape of slab, lift slab and place balls in position. The clay between the balls will sag making a ripple. Smooth edges with fingers.

## - FLOP FORMS

Prepare a low mound of plaster, clay, or sand as a form for molding. Cover clay with a double layer of cheese cloth. Cover sand with a layer of moist paper toweling.

Roll slab on piece of canvas, cut to desired shape. Lift canvas and clay, invert canvas and place clay over mold mound. Remove canvas and gently shape clay to mold. Store mold and clay in plastic bag overnight to retard drying. Remove bowl from mold and allov' to dry.

Texture from the canvas, cheesecloth, or paper toweling may be left in the clay, or the clay may be smoothed with slightly moistened fingers.

## - HAMMOCK SHAPES

Make a hammock mold by attaching muslin, burlap, canvas, cheese cloth, onion bags, or other textured cloth to the open end of a 'ox. Allow the material to sag to any desired depth. Roll clay slab on canvas and cut to shape. Lift canvas and clay, invert, placing clay directly in hammock mold. Remove canvas and smooth clay with fingers. If texture is desired on the inside, press with same material as hammock.

Cover clay and hammock mold lightly with plastic and allow to remain over night.

Remove bowl and allow to dry.

## Modeling - Slab Bowls...

## - SQUARE BOWLS

Roll clay slab and cut a base square or rectangle to desired size. Cut four side walls to fit exact size of base. Score overlapping edges of sides and base and cover with slip.

Assemble one side at a time, allowing it to set before adding the next. Thin clay coils may be pressed on the inside of each corner or joint to give added strength.

Variations on geometric box structure are more interesting. Distort the base square into irregular parallelograms or triangles. Distort sides by cutting irregular squares or by pushing and twisting to form more interesting shapes.

## - CYLINDER BOWLS

Roll clay slab and cut a base circle. Cut a rectangle the length of the circumference of the circular base and the desired height of the bowl.

Roll into a cylinder and adhere to base with slip and thin clay coils.

Distort cylinder into interesting shape by pushing or twinting. Combine groups of cylinders for turning bowls into vases, Jle holders, or other forms.

Combine cylinder shapes with square slabs for variety.

## - APPENDAGES TO BOWLS

If handles and feet are desired on ripple bowls, flop forms, and hammock shapes, form and attach to bowl before removing from mold.

Attach by scoring clay appendage and bowl at points of contact. Paint both with slip and press together. Allow extra slip to remain at joint until dry - then it may be scraped away.

Attach handles and feet to square and cylinder bowls after the clay has become leather dry.

A flat base may be put on either bowl by rotating the leather dry clay on sandpaper to flatten the boitom to fit the base.

Slip is made by adding water to clay until it is creamy in consistency. Always make slip of the same clay as the objects and pieces being welded or attached.

## Carving ...

Carving is a process where parts of a bulk material are cut, gouged, chiseled, and taken away to form a three dimensional object.

- In The Round - representation of a three-dimensional foursided figure or object.
- Relief - representation of three-dimensional forms projecting from an attached background.
- Intaglio - representation of three-dimensional forms incised into a flat plane.

Plaster, clay, and synthetic stone may be molded into block forms. Other materials are blocks by nature; wood, stone, soap, block salt, ice, and insulating brick. Some materials that may be found or turned into block form are: candles, beeswax, styrofoam, plastics, balsawood, and soft metals.

## WOOD

- Soft wood, such as, pine, redwood, and basswood are suggested for beginners. More experienced carvers may desire harder woods, such as, mahogany, walnut, and cedar.
- Any flat lumber the thickness of desired depth of a relief may be used.
- Always allow the grain of the wood to be a part of the design.


## PLASTER

- Plaster of Paris may be poured into a cardboard or wood form to the desired shape and thickness.


## CLAY

- Clay may be rolled or shaped into a slab or strip or poured into a mold and allowed to dry to leather hardness.


## SYNTHETIC STONE

- Light weight aggregates may be formed by combining plaster, cement, sand, and insulating materials.

See recipe section for instructions for mixing plaster of Paris and synthetic stones.


CHISEL



## Carving . . .

Though each material has inherent qualities that determine use of tools and finished appearance, the carving procedure is general.

- Select piece of bulk material to be used and study it for auggested design.
- Make preliminary sketches on paper. Visualize relief design from one side - in the round or full dimensional design from all sides.
- Sketch directly on material with chalk or charcoal.
- Blocking out stage -
- Rough out design, with saw, chisel or knife.
- Avoid cutting away too much at a time.
- Cut first on one side, then on the other.
- Work all the way around the object.
- Keep one quarter inch away from drawn lines of design.
- Finishing the carving -
- Develop shapes with small tools.
- Sharp edges may be rounded by scraping, rasping, and sanding.
- Add details as whole nears completion.
- Tool marks may be left as desired texture.
- Tool marks may be smoothed out and the whole piece sanded or burnished.

Simple tools may be used effectively for carving - pen knives, coping saws, files, rasps, round end chisels, hammers and mallets, scrapers, and sandpaper.

- The student should be made aware of sharpness of tools and should be taught extreme caution and care in their use.
- Tools should be kept sharp and in good condition. A sharp tool is easier to guide and will not slip as a dull one might.
- Hazards can be reduced by anchoring sculpture in a vise or clamp.


## Modeling -Clay Decoration...

## TEMPERA AND WATERCOLOR

Non-firing clays may be painted with tempera and watercolor. The paint will adhere better if applied before the piece is thoroughly dry. Cover paint with plastic spray or clear lacquer for protection.

## SHOE POLISH

Shoe polish gives a protective cover of wax to non-fired clays and imitates the coloring of fire clays.

## GLAZING

Glaze is usually applied to a piece after bisque (first) firing but may be applied to greenware (unfired) clay to save firing time. After glazing the piece must be fired again to produce color.

## SLIP OR ENGOBE

An underglaze color is mixed with powdered clay and water and applied to greenware while it is semi-moist or leather dry.

An underglaze color must be covered by an overglaze after firing.

## gLAZE APPLICATION

Painting - Paint on raw clay or bisque ware, on the clay itself or over engobe or glaze, using either glaze or engobs for the design.

Wax Resist - On a bisque-fired piece, paint a design with wax. Allow wax to dry. Cover the design with engobe or glaze.

Stencil - Cut a design from paper. Hold stencil in place and dab on glaze or engobe. Brush from paper to opening in stencil to prevent brushing under edges of stencil. An absorbent paper may be dampened and pressed onto piece. After painting lift damp paper carefully.

Slip-Trailing - Fill a syringe with glaze or engobe. Squeeze the syringe evenly while trailing a design on the surface.

Stamping - Cur u stamp from an eraser, potato, ir other easily carved material. Brush glaze or engobe on the stamp. Press the stamp onto clay surface.


## Modeling - Clay Decoration...

## SCRAFFITO

- Apply glaze or engobe to greenware or bisque ware.
- Draw a design on clay piece.
- Scratch out the design using a pointed or sharp edged tool.
- The color of the clay will show through the scratched lines.
- A design in engobe may be given a coat of transparent glaze before or after bisque firing.


## INCISED DESIGNS

- Using sharp tool cut relief decorations in semi-moist clay.


## TOOLED TEXTURES

- Press into moist clay with any object that will make an indentaion.
- Use ordinary hardware items having unique lines and shapes.


## EMBOSSED PATTERNS

- Cut shapes and patterns from thin slabs of clay.
- Adhere to piece by welding with slip.

INLAY OR MISHIMA

- Incise a design in semi-moist clay.
- Fill with a thick colored slip.
- When partially dry scrape off excess slip flush with surface.


## Modeling -Molding and Casting...

Modeling materials that can be mixed to a liquid can be poured into a mold to reproduce an object created in another medium or to form blocks or slabs for carving.

- Molds may be simple cardboard boxes or containers.

Boxes may be used for casting block forms for carving. or they may be used with other materials io form one piece molds.

- Other one piece molds may be devised from strips of cardboard or wood.

Frame a relief panel with strips the width of the plaque desired. Tack together with nails or wedge together with clay.

- A hole dug in the ground may be used for a one piece mold especially suitable for sand casting.

The one piece mold produces a plaque or relief structure with dimensional shapes protruding from a flat plane.

- The shapes modeled in the mold material appear in reverse when cast.
- The casting may be given a protective coating and then used as a mold if the original design is desired.

A two piece mold formed in halves is used to reproduce objects in the round.

- Place a modeled piece in a container and pour or shape plaster around one half of the piece.
- Allow to dry.
- Cover surface of dried plaster with a protective coating, such as, petroleum jelly.
- Pour plaster forming second half of mold.
- An opening for pouring casting material into the mold may be formed after the mold has dried, or a tube or dowel rod may be inserted when first half of mold is formed.



## Modeling - Molding and Casting...

## Clay

- Press into a box.
- Model surface patterns with fingers or pressed or imbedded textural objects.
- Cast with plaster while clay is still moist.
- Non-hardening clay works well and may be re-used for other molds.
- Other clays may be allowed to dry and then cut, chiseled. and scraped to form surface patterns.
wax
- Pour liquid wax into a box.
- When cool, it may be carved, scratched, and scraped to form surface patterns.
- Cast with plaster or clay.


## SAND

- Place fine, moist sand in a box or hole.
- The moist sand will retain its shape when surface patterns are scraped, dug, and pressed into it.
- Cast with plaster or concrete aggregate.


## PLASTER

- Pour plaster into boxes forming slabs.
- When dry, the surface may be carved.
- Form mold around carved slab.
- Cast with clay or cover with a protective coating and cast with plaster.


## Assembling and Structuring...

Assembling and structuring differ from other sculpture mediums by the nature of the materials employed. Three dimensional objects are made from basically two dimensional materials. These materials are turned into flat or curved planes that must be joined together to form stable constructions by the use of other materials, such as, nails, solder, and glue.

Structured objects may be assembled from wood, metal, wire, paper, plastic, cardboard, and scrap materials. The manipulative technique is determined by the nature of the material and the manner by which the material can be adhered to itself or to the other materials in the structure.

## - Relief Structure

Use a flat sheet of wood, metal, plastic, or cardboarr as a support.

- Assemble and adhere materials in overlapping layers to achieve shallow depth of a relief.

Assemble materials without reference to a background support.

- Adhere or attach part to part in such a way that the overall reliei structure supports itself.
- Free Standing Structure

Use a flat sheet of wood, metal, plastic, or cardboard as a base.

- Assemble and adhere materials in vertical and horizontal structures to be viewed on all four sides.

Assemble materials without reference to a base support.

- Adhere or attach part to part in such a way that the overall three dimensional structure supports itself.



## Assembling and Structuring...

METAL

- Metal in sheet. pipe, and rod form may be cut in shapes and assembled in planular designs by soldering. welding. brazing. riveting, or wiring.
- Flat pieces of metal cut to desired shapes may be combined with metal rods, pipes, and wire for variety of line. form, and texture.
- Other materials, such as: wood, glass. plastic. and string may be used with the metal if desired.


## WOOD

- Economy, availability, and ease o.- manipulation make word a good material for structural design. All types of lumber stock may be shaped and assert, ed in planular designs for relief or free standing structures.
- Wood working tools and power saws would provide more opportunity for highly finished work, but good structures can be assembled with simple saws, hammers, di ills, nails, screws, bolts, and glue.
- Different woods may be combined in the same construction allowing the grain and color of each wood to give variety to the design.
- The wood can be stained, waxed, or varnished in natural color, or it can be painted with enamels or oil paints.


## OTHER STRUCTURAL MATERIALS

- Sheet plastic, styrofoam, paper, and cardboard are easily manipulated and assembled and respond to a variety of experimental activities.
- For unusual variations these materials may be combined with string, wire, wood, and metal.


## Textiles - Tie Dye...

Wash and press the fabric.

## Determine the tying pattern.

Tie by knotting, binding, folding, sewing, or a combination.

Keep one side as right side on the outside of the bundle.

Prepare dye and test for color with a scrap of fabric.

Place tied material in dye for length of time needed for desired color.

Remove and squeeze out surplus dye.

Rinse until water is clear.

Squeeze out surplus water and hang to dry.

When additional colors are desired, tie and bind where previous color is to be retained.

Repeat dyeing process for each color.

Dry as quickly as possible after final dyeing.

Untie while partially dry.

Iron while still damp.

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Ric


## USE CAUTION.

Dry cleaning will remove all excess wax. Batik dyek are not permanent and fabric should be dry cleaned instead of washed.

- Acetic acid mixed into the dye will sive some permanency.

PACE IS 3D RIGHT POCKET

## Mobiles...

## MATERIALS FOR A METAL MOBILE:

One would need various weights of wire and pieces of sheet metal, of different gauges, files, flux, pliers, tinsnips, hammers, swivels, wire cutters, solder, soldering iron, etc.

## PROCEDURE:

Cut the wire into various lengths as needed. Sketch of the planned mobile would help to see the sizes of wire and shapes one would require.

Cut a piece of sheet metal for the smallest wire. The selection of the metal shape and the sizes of wire needec involves artistic judgment. Consideration should be given to the amount of weight a given piece of wire will hold without droop. The weight should make the wire bow as this induces a quivering and adds to the mobility of the mobile.

Balance the smalle, un: first then work up carefully to the largest unit. Figures 1 and - ustrate a method of fastening metal shapes to wire without using solder.

Figure 3 illustrates a loop for the wire rods. We try to locate the balance point of the rods, this is where the loop should be. The balance point is changing when metal shapes are attached; one ought to keep this in mind when locating the loops.

Figure 4 shows a method of making loops that helps us allow for shift from front to back to find the balance point.

Figure 5 illustrates a figure 8 joint that allows for movement. A fishing swivel would allow for a complete $360^{\circ}$ movement and would likely be a wise investment for anyone working with metal mobiles.

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## Mobiles

Mobiles can be constructed so that the forms are suspended one from another. These can be made from paper, cardboard, or metal. Pupils in the lower grades can have a happy experience making a mohile which moves gently in space. A slight breeze will cause movement . . . but the most interesting part of this comes from watching the fascination and expression on the children's faces as they watch mobiles react to every wisp of air making them move.

The metal variety might be reserved for the older students. They require much more slill and thought and a certain manipulative skill with tools usually out of reach for the very young pupil.

There are many ways of entidncing their creations. They may use string, yarn, tissue, and toothpicks. Paint, glitter, colored plastics, or colored cellophane may be added to adorn these imaginative creations.

Children must be careful to find those sensitive points of balance of the creation. Pupils will develop patient work habits because of this disciplining activity. Good results can be expectin! of individual or group attumpt. The key to satisfactory results seems to be planning.

Children gain an insight to space and reaction of these objects in space when these constructions are tried.

Space itself has a different meaning to the students when they have the experience of making mobiles.

## Mobiles..

Mobiles can be made from materials other than metal ones exclusively. They may be in combination with wood, dowels, cardboard, string, wire, styrofoam, sticks, etc. The above can be used to make a mobile that "suspends" from a backbone.

## PROCEDURE:

The combination of the parts should form a feeling of unity required of any piece of sculpture. The parts need to be assembled by beginning at the bottom and working up towards the backbone.

Periodically test the mobile. Watch the effects of slight air currents on its movement. Pupils gain an appreciation of the movements upon the completion of their mobiles. Alert the student what to watch for as the movement in space begins. One can make figures, faces, and animals into mobile forms which can create interesting effects.

Selection of shapes to cut might be geometric, free form, natural, or any other one may think about.

The combination of these in the right proportion and their relationships with a search for the best and most fascinating effer $t$ of movement are the major objectives when working with mobiles.

Space utilization with the forms used and the inter-reaction helps us to see the movement and enjoy the direction, almost creating a hypnotic effect on the observer.

We suggest you make one, hang it up for the children to see, then watch the pupil reactions. We're sure you will agree that mobiles are fascinating.

## Etching - Dry Point . . .

For this type of ,rinting you will need a sharpened needle tool which can be made from a dowel, a sharp nail, a needle or heavy wire. You will also need to get a sheet of celluloid or clear plastic. Open tin can flat, cut off the ribs at each end. The sheet of tin can be used as a plate. Sheet copper also makes a good plate material. You will need printing inks. (Linoleum block type). Some sort of press is needed. A wringer type press can do a satisfactory job. You might be able to locate an old hand wringer. These will all make a satisfactory print.

## PROCEDURE:

The design is made by scratching into the plate surface which makes shallow pockets for the ink. These scratches must be deep enough to hold ink after the plate is wiped clean. Experimentation will tell you when you have achieved this. The finished plate is inked with a brayer and wiped clean with a cloth or the side of the hand to remove the surface ink. The scratches will retain the ink. Soak some paper, dry with blotter so no water slicks remain, and run the plate and paper through the press. The ink which is in the scratched surface should transfer to make a print. Check the pressure if the print is poor. The plate may need a little work also. Dark areas print this way because of many scratches which are closer together. It is possible for very fine work etching using the above method.

This is one facet of printing overlooked many times by schools. It would surprise many if they realized how little equipment and supplies would be needed.

If you have an X-ray unit in your town, check the doctors and dentists for used $x$-ray film which is discarded after a certain amount of time, the material is exceller. for the process described above. Vinyl tile can also be used in a similar manner.

## Printmaking...

Relief printing materials can include a variety of items: polatoes, carrots, corks, dowels, pins, wood blocks, cardboard, sponges, cloth, plastic products, inner tubes, rubber bands, yarn, corrugated card.

## PROCEDURE:

For the soft materials such as the carrots, and the potatoes you have to cut the vegetables so $c_{1}$ Idren can print with the raised design. (figure 1)

Scraps of wooden blocks can be sawed with a coping saw to make lines of various widths. These create a design in many nays - shift, criss-cross, overlap and color changes. The surfaces in some of the hard materials can be cut into by the older children using kr ives ?nd razor blades or x -act knives.

Cardboard pieces can be glued to blocks. A shellac, varnish, or lacquer coating will protect from water base paint. Spread a thin layer of tempera with the rush or dip them into a shallow dish and print. If you desire to use a brayer the tempera ink may need a little glycerine to make the ink tacky.

Printing of this type is usually done with patterns in mind. Various ways of repeating can be explored. Printing can be interesting by gluing various forms to rollers or blocks. Strings or yarn can be rolled around these cans or wrapped around blocks for good printing results. Rough textured cloth or burlap is cut into various sizes and shapes and glued for the printing process to blocks for interesting prints.

This is wonderful for gadgetry exploration. Answers to such questions as: Will it make a good print? What can I do with this? Let me try this. Wonder what other effects you can get? What will happen if we change the color? We are sure that you will have many more questions which will rem quire answers. The solutions to these questions must come from the pupils to be effective.

## Block Printing...

Materials you will need include: Linoleum, printing ink, cutting tools, (gouges) inking slab. The best material for linoleum cutting is called battleship linoleum and is usually mounted on wooden blocks. A new matcrial which has an adhesive backing and does an excellent job is printmasters plate. This can be cut with gouge tools or with scissors. It is an excellent substitute and the best feature is no waste. Check the local merchants for scrap linoleum or vinyl tile.

## PROCEDURE:

Careful planning is essential to good design when a linoleum print is made. Students have a tendency to work with fine lines. India ink drawings with brush are good introductions to the block print process. These brush drawings are more easily adaptable for linoleum. Fine lines are difficult to cut out. Children will find areas of light and dark mass the best for their abilities.

After the design has been cut, roll an inked brayer across the surface and make a sample print. Printing may be by foot pressure, with a spoon by rubbing, or sometimes using a small linoleum press. The best prints will need some sort of cushioning such as old newspapers or paper towels.

Care must be taken to protect the children from cutting themselves. The illustration shows a bench block in use which can be easily built so that the pupils have both hands free while cutting the block. Pupil will be comparatively safe if he remembers to keep both hands behind the cutter blades. Keep band aids on hand just in case an accident occurs. The blocks against the desk or table edge will hold them quite easily.

Have the children experiment with a printmasters plate. There is no waste because all the pieces cut can be glued to make an abstract design. This material can be cut with scissors so very little tool use is necessary. One word of caution if lettering, when making cards remember the letters must be reversed. Letters are upside down and backward after cutting. A mirror can be very helpful when cutting or making letters for printing. Have fun printing.


## Serigraphy...

Serigraphy or silk screen printing . . . basically is a stencil process. Blocked out areas are affixed to a screen. This allows for close repetition. A simple silk screen can use a box for a frame and paper for stencils. More complex sturdy units usually are the wooden variety. They make use of lacquer stencils, a hinged frame, and oil-based paint which improves the ease of operation.

Making the taifite is the first step whether it is of cardboard or wood. Embroidery hoops work well for small designs. Stretch the silk or a substitute - organdie, Swiss bolting cloth, nylon or taffeta which will hold the stencil. Tape the inside corners. This prevents seepage of ink through the frame.

Stretch the screen very tightly. If a wooden frame, begin at the center on all four sides and alternate towards the corners. Placing the screen and stencil on the bottom side of the frame and dampening paper stencil with paint will keep the stencil in place, when the paint is pulled across the screen with the squeegee. Glue edges will give a "sift" edge. A "hard" edge for lettering or poster work will be best done with a paper or lacquer stencil. A taped $90^{\circ}$ angle provides the operator with a registration mark.

Block out areas both positive and negative with crayon, glue, shellac, lacquer, stencil film or paper.

A thick paint is used for printing. A squeegee then is drawn across the screen which allows paint to be deposited onto paper through the open screen areas. When using an oil based paint it will necessitate a cleanup with turpentine. The water base paint seems to be preferred because water can be used for cleanup. Some glue is soluble in water and if used to make a frame, care must be taken in cleanup. If shellac was used then the solvent needed for cleanup is alcohol.

## Aluminum Etching...

Aluminum is excellent for etching with new mordants that have been put on the market. Usually safer than most acids recommended for etching. Nitric acid used only with students familiar with its danger. This is used usually with copper etching.

We try to use material which has considered the safety of children. The process is similar in either case, but if a choice were given, preference should be shown for the mordant.

च- Piepare tile design, allow an inch border for fluting. If tray is pre-formed, the space available limits the design.

- Paint dark areas of design with asphaltum. (protects) Any area not painted with asphaltum will be etched.
- Use fluting tool as illustrated to turn up tray edge. Inspect after fluting for chipping of asphaltum. You must touch up the spots that have flaked away or the etching solution will eat away the metal.
- Prepare the mordant according to the instructions on the can. Pour into the tray. Watch that none of this mordant spills over the edge and gets underneath the tray or the mordant will etch away the bottom of the tray. To be on the safe side if expense is not important paint the bottom of the tray. Use a feather to gently stir the solution. Bubbling occurs for a time but do not get too close to inhale the fumes. Etching time will usually be indicated on the can: After etching is completed pour solution off into non-metal container carefully. Keep the solution labeled. It is good for more etching.
- Put a small amount of turpentine into base of the tray and allow to soak a short time. With paper towels work over the asphaltum areas to loosen the tarry substance. Remove as much as you can and repeat the process until the tray is clean. Wash under tap. Caution: protect the clothing during the above process.

Steel wool is sometimes used to give the etched surface a texture. After steel wool is used, repolishing of the metal to a shiny high gloss is impossible.

Aluminum trays also come in color coated surfaces. Blue, copper, red, green, etc. When etched they make an interesting effect.


SPRINKLE FLUX

FIRE - COOL clean coregulely


ADD LUMPS - THREADS
FIRE - COOL


## Coppser Enameling...

Shapes for copper enameling can be purchased from any art supplier. Check the supplier listings. Scraps of copper can be sawed with jewelers saws if school has the equipment. Small C clamps, bench pins and jewelry findings complete necessary items needed.

Remove all grease and oil from shapes to be enameled. Other materials can be enameled but we have found the pupils work with copper best.

After cleaning, gum tragacanth is applied with a brush. Avoid touching the piece. Apply an even layer of flux dust, edges first and place into pre-heated kiln carefully. When surface is smooth remove from kiln. Place on asbestos surface to cool. After it has cooled then clean and apply gum solution again over the flux. The color is then sprinkled on with a shaker and fired. A variation can be made by adding lumps and threads. You will achieve some unusual design possibilities.

Place in kiln, carefully or use a benzine torch at the base of object to be enameled. Bring to a red heat as you watch the enamel melt of fuse. In the kiln a heat of $1250^{\circ}$ to $1500^{\circ}$ is used. Pupils may be wise to study melting points of the various metals while experimenting. These may be fired repeatedly if not satisfied.

Object is allowed to cool after firing and again carefully cleaned to prepare for soldering findings. The pin back, cuff link, and earring back are called findings. These may be purchased from any. craft or hobby shop. Some thin fine wire is also needed.

The finding is wired over the enameled piece, add some flux, apply heat and a piece of solder. As soon as solder melts remove from flame. Tweezers hold the finding as soldering takes place. If hard solder is desired a thought should be given about cost, although we found hard solder to be best. A higher temperature is needed.

Tiny squares of hard solder are cut about the size of this typewritten $x$. Hard solder requires flux as well as higher heat. Hard solder is usually used for fine quality jewelry work and should be handled by students with experience. Use wire where possible - it will help the student do a better job.

When hard solder is used a small amount of solder is necessary and as heat is reached the capillary action fuses the copper to the findings.

## Aluminum Foil Tooling...

Plan a design suitable to foil work. Keep design simple. The drawing is placed or clipped to foil. Paper toweling or newspapers are used as padding under the foil. Pressure from a modeling tool, or eraser side of a pencil, or leather tools creates a three dimensional effect. Too much pressure too soon on soft aluminum makes one reach the elastic limits of the metal, at which point the thin metal cracks. The gradual stretching of the metal rakes the best results. The metal is pushed from both sides.

The backgrounds may be plain, smooth, rough, textured. Lines or dots can be applied with a leather tool, pencil, ballpoint pen or stick, in fact, any object which will give the desired effect.

Copper differs from aluminum in that it gets hard after working it. Copper requires annealing which is heating to soften the metal. Cooled with water. Use a bunsen burner or a benzine torch for annealing. Perhaps it would be wise to provide material to cope with heat such as asbestos gloves, fireproof area, tongs for holding metal while heating.

The tooling process is similar to aluminum except for the annealing process. Copper can be darkened with a liver of sulpher solution (has slight odor). This solution when applied darkens the incisions made in the metal. Fine steel wool can be rubbed over the surface to bring out the highlights. The copper is then varnished or shellacked. Plaster or cotton can be used as back padding.

Children have experimented with brayer printing. Place a sheet of paper over the modeled foils and with a light inked brayer roll over the foil. The print can be filled in with crayon or paint. More prints can be made by reversing the foil.

Keep the class projects open ended so student can try new approaches. This printing technique would not have been discovered had a strict procedure been followed. A creative atmosphere is very important in any classroom.

Avoid saying this is the only way to do this. Try to encourage and submit problems requiring solutons. Give ample opportunity to find these. Remember for every successful solution failure is part of the problem solving method.

## Metalwork...

Metals of various kinds are used in beating as follows: tin, copper, brass, aluminum, pewter, silver,

Wooden molds, sandbags, hammers of various kinds are a must to get good results in beating and forming.

Use a ball peen hammer and a copper disc or an old coffee can lid. Start at the center and carefully rotate the metal as you beat it rhythmically until you reach the outer edge. Continue the beating process until the metal is formed to the shape wanted. You are stretching the metal as you beat. A rhythm in the beating is important coupled with the same amount of power in the beat to give the best results.

Copper requires annealing as you work. Soften it as often as is necessary. Continue beating till shape finished. A planishing hammer is used to finish the surface. This part of the process is long and must be carefully done to eliminate imperfections and achieve a well-formed piece. Cost of materials limits this process to the junior and senior high schools.

Sound-proof boards will absorb pounding noises but when placed under sandbags noises are deadened.

A wonderful disciplining experience also helps the child vent his tensions on an object. Child learns control and develops a rhythm and strength as forming of metal is completed.

The excellent workmanship of early American metalsmiths should provide for us an appreciation which would help us to see the rich heritage we inherit.

With experience children will try uniting metal by using the soldering technique. The child develops an appreciation of the care and amount of skill required to make beautiful objects from flat metal.

With modernization and automation more and more of the people are wondering what to do with their leisure time. What a wonderful opportunity to spend a few remaining years making beautiful objects. They can only result in pride and satisfaction.

The process is time consuming and results are slow. Possible rewards to children in using newly aquired skills are care, patience, pride of achievement.

## Sawing - Piercing ...

A design is prepared and transferred to metal piece. Design should not be too intricate. A hand drill is used to make starting holes for various parts of the design. (See illustration at right)

A jewelers saw blade is inserted into the hole made and attached to the frame. Use a bench pin to hold the work or a vise, cut with downward strokes keeping the saw as vertical as possible. Do not foreosan-or fast as the blades are ceiicaic and incan in normal use easily. Repeat as often as necessary. When design is completed cut the outer edges. No drilling is needed for the edge but unusual edge treatment is desired at times as a scallop or smooth curve.

A fine set of needle files are needed to remove burred edges from the tiny places, corners or curves. Steel wool (fine) is used to polish the metal cut. Sometimes a polisher grinder is used. Supply goggles as a safety measure if automatic polishing is done. Jewelers rouge is used with power polishing.

Protective measures can be taken for the hands also. Pupils using power tools must concentrate on what is to be done, therefore the power tool area is not the place for conversations. Insist on this precaution. No loose clothing should be worn while working about the machinery. Remove all hand jewelry while working around power tools.

Much of the sawing and piercing can be done with the hand tools but power equipment speeds up the process.

This is another area which should perhaps be limited to junior and senior high school students. The equipment cost and the maturity necessary to operate some of the power tools and sharp instruments makes lower grade participation doubtful. Use of coping saw with plywood is a good activity to replace the metal, any experience with a coping saw will help later on.

Many classrooms are not designed for work mentioned above. If ever you are planning room renovations, remember electrical outlets one would need at the work areas.

To make the best use of the equipment available the pupil must share and take turns. Stat on procedures are used which require certain tools. Groups of six to eight students can work and revolve with the other work areas set up. Several processes can be operating at the same time. All can have the experiences necessary using this method.

## Metalwork Examples...

Top photo at left shows the start of metal beating. You can see the metal starting to stretch.

The work is shown in various stages of forming. The second photo in the second line shows the use of a rubber crutch tip placed over the hamn. er to prevent marring of the metal if this is desired. The fourth line photo at left shows the use of a planishing hammer to take out irregularities. If properly executed, this will put a finish on the metal piece. Requires much patience.

The tray in line five shows the etching process taking place. Etching mordant is placed in the shallow part of the tray. The shiny part of the upper part of the tray should also have been painted with asphaltum to prevent etching by the mordant.

Lines six and seven show the process of metal foil tooling. Lower grade children can be quite successful with this process. Upper grades might try the more difficult copper foil tooling.

Copper enameling is shown in the three photographs at the bottom. The middle photo shows the attachment of a finding to the fish shape. Upper grades should try this if an enameling kiln is available.

The final photo at extreme right bottom shows what can be done with wire sculpturing.

The possibilities are limitless. As you can see some of the processes require special equipment but many of the metal activities can be adapted to lower grade work with a minimum of special tools.

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## Gewelry...

a. Several layers of paper towel or newsprint may be pasted together. While still damp draw a flower on the paper and cut it out with a scissors. Gently lift the petals and shape by pressing with the fingers. Dry and paint. Cover with clear nail polish or shellac.
b. Use the recipe for salt clay (in the recipe section of this guide). Roll small pieces to form beads. With a toothpick pierce each bead and string together. Pins may also be made from salt clay.
c. Material scraps may be used for jewelry by cutting them larger than the button or cardboard form to be covered. Findings (pin backs) may be sewn on.
d. Pompoms are different for earrings and corsage pins. Cut two round pieces of cardboard with holes in the centers. Use yarn to wrap them together as shown. Wind securely; cut yarn hetween the cardboards and tie tightly.
e. Various small pieces such as rice, shells, macaroni, aquarium chips and bits of plastic can be glued to a form . . . wood, cardboard, poker chips, oval can lids from tea or cocoa, or other flat shapes that can be found.
f. Smooth flexible plastic sheets come in brilliant colors and can be found in handcraft catalogs. Some stores carry them as notebook covers. Designs can be cut with scissors and suspended from nylon thread to form the popular dangling types of earrings.

NOTE: All the above jewelry items need pins or clasps attached. Most variety stores carry them. In some cases small safety pins can be used.

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## Papier Mache...

PAPIER MACHE is a combination of newspaper and wall paper paste to make three dimensional forms. Here are a few suggestions for using papier mache in strips, pieces, and pulp:

- Tear several thicknesses along the printed columns. Tearing is better than cutting because it develops coordination and finger dexterity. It also "melts" into a smoother surface.
- To mix paste: Pour warm water intors shat!ow pan. Sprinkle wall paper paste on top and mix well with the hands until smooth. It should be the consistency of thick gravy. It thickens as it stands.
- Paste can be kept for several days. Do not allow it to sour.
- Paste gives strength, use plenty.
- Drying must be regulated so the form will not mildew. Use DRY paper wads inside the form. A low oven heat may speed the drying.
- For pulp: Rip paper into small pieces and soak overnight in warm water. In the morning, knead the paper, squeeze out excess water, add paste. Dry tempera can be added to eliminate painting. Commercial pulp is available:
- To make a good painting surface, use a coat of paper toweling for finishing.
- Elmer's Glue mixed with tempera paint (about a tsp. for an average size item) gives a stronger finish.
- Colored paper, cloth, and other finishes can be used instead of paint. (Gingham dog and calico cat, etc.)
- do not allow the children to eat the paste.


## 1. BALLS, SIMPLE ANIMALS AND BIRDS.

Wad paper tightly and secure with a string or pieces of pasted paper. Squeeze out the head or add a small ball. Other parts and features can be added. Insert pieces of wire for feet, legs, and bill. Paint. Use small paper sacks filled with wads of paper for basic forms. Coat the hands with paste and form the sack into the shape desired. Add detail and paint.


## Papier Mache...

## 4. BURNED OUT LIGHT BULBS FOR MARACAS.

Rhythm instruments can be made by coating burned out light bulbs with paste and several layers of pasted newspaper strips and pieces. Allow to dry and make a hole in the cheek with a hammer and a screw driver. Insert several dry beans, stones, marbles, bits of glass, or gravel and cover the hole with several layers of paper. Cover with a layer of paper toweling. A string can be embedded near the bottom so the maraca can be hung in a decorative swag when not in use. Dry and decorate. Fringe, fur, yarn, or other material can be added to make the maraca into a fetish.

## 5. LARGER ITEMS BUILT ON ARMATURES.

A length of wire rolled tightly in newspaper can be built into a large strong shape. Cardboard mailing tubes or a saw-horse form built of wood will make a sturdy armature. Chicken wire bent into a suitable shape will make a quick and easy form. Any of these can be built up with wads of dry paper tied securely with smaller wads used to fill out the form. Insert strips of cloth to add strength. When the desired form is reached, paint and decorate. Some constructions built on wooden armatures are strong enough for children to climb upon. These items can also be used for stage props, school floats, and mascots.

## 6. COSTUME JEWELRY.

Exotic jewelry created from papier mache pulp and laminated pieces is a challenging project for the style-conscious girl. Beads, pins, earrings, bracelets, rings, and other items can be painted to match or contrast with her costume. This is a good opportunity for the student to develop good taste in costume accessories.

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Papier Mache...
7. MASKS.

Slides and pictures of masks worn in the ceremonies of primitive people would make good motivation for a mask-making unit in papier mache. This would aid in developing appreciation of the art forms important to other cultures. A mask for wearing or for wall decoration can be shaped over a large juice can. It should be wrapped in dry newspaper to prevent it from sticking. Several thicknesses of newspaper are pasted together and holes cut for the features. As the mask is being created, proportions of the face and placement of the features can be emphasized. A great variety of surface treatments in the form of cardboard strips, pieces of egg cartons, and areas of papier mache pulp will challenge the imagination of the creative child. Place on the juice can for drying in a curved form. Ears and other features can be formed and attached when dry.

A mask could be formed from Plasticine and covered with strips of papcr. Use WET paper strips for the first layer and pasted strips for the others. Use at least 12 layers for strength. When the paper is dry, scoop out the clay and the mask can be painted and finished.
8. BALLOON MASKS.

Giant balloons which fit over the head can be used as armatures for Mardi-Gras head masks. From these forms, school mascots could also be created. Tigers, panthers, wolves, etc. will inspire group work as the students develop school spirit and loyalty. Several layers of pasted strips and pieces can be strengthened with an occasional layer of sheeting. Sculptured additions from laminated paper will add personality. Fur, yarn, jewels, buttons, etc. from the scrap box will make attractive finishes. Carnivals and costume parties may be the motivation for this activity.

BALLOONS can also be used for animal bodies.

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## Puppetry...

PUPPETRY IS A TEACHING TOOL WHICH IS EFFECTIVE AT ANY AGE LEVEL. The great variety of types and uses combine to make this one of the most valuable art activities. Remember: THERE IS NO RIGHT WAY OR WRONG WAY TO MAKE A PUPPET, THERE IS JUST A BEST WAY FOR EACH CHILD and he should be motivated to find HIS own best way.

## SIMPLE STICK PUPPETS.

For simple puppets, a child's drawing or painting can be mounted on heavy paper, cut out, and fastened to a wire or stick and manipulated. Ask your shoe man to save the bamboo "shoe trees" which come in new shoes. These make ideal controls for puppets as well as good paint stirrers. If partial movement is desired from the puppet, that part can be cut out separately, being sure to allow for overlap. Attach this part to the figure with brass paper fasteners. A second stick can be fastened to this part so it can be manipulated by the child's other hand. This type of puppet can also serve as a shadow puppet.

Attach a stick to a single depression of an egg carton and add features for a tiny puppet. Eyes, ears, nose, and other features can be added including pipe cleaner antlers, buad and sequin eyes, button noses, wire, whiskers, and fur scrap ears.

## CARDBOARD BOX AND PAPER CUP PUPPETS.

Simple puppets can also be created from salt or cereal boxes, malted milk cartons, milk containers, and similar foundations. These can be covered with paper, painted, or covered with cloth scraps. When painting over a waxed foundation, use a few drops of liquid soap or whisk your brush over a cake of soap occasionally to make the paint adhere. Use items from the scrap collection: costume jewelry, ribbon, fur, yarn, buttons and other material to trim. Wear a long sleeve, glove, or "wrist skirt" while manipulating the puppet to detract from the nakedness of the arm. Such a skirt can be made from an old sleeve or a strip of cloth gathered with elastic to fit the puppeteer's wrist.

PAGE 39 3D RIGHT POCKET


## Puppetry...

## PUPPETS FROM A POTATO, APPLE, CARROT, ETC.

Use an apple corer or a knife to core an apple about half way up from the stem end. The index finger is inserted in the hole to manipulate the puppet. Beads or sequin discs on short pins, thumbtacks, buttons, jewels, etc. can be used to designate the features. Try building a nose from some of the core. The costume can be simple or fancy. A silk scarf or handkerchief over the hand before the head is put on will be an effective costume. Hands can be suggested by twisting rubber bands around the index and second finger close to the ends. A scarf, drapery, piece of fur, oi other material can be used for head covering. Try a stretched-out chore girl. As a fruit or vegetable puppet will dry out quickly, it is short-lived. However, a "sprouted" potato makes a fantastic African warrior. Try making this type of puppet "on the spot" for the children. They will be deligh...d.

## FINGER PUPPETS.

Little foam balls or tiny new potatoes are good for finger puppets. Make a hole to fit over the end of the finger. Make slip dresses in the shape of an inverted thimble or cut off the fingers from a pair of discarded gloves. Short pieces of wire or pipe cleaners can ruggest the arms. A few strands of yarn attached with a drop of glue will suggest hair. A tiny feather on the head and a few appropriate details can make a charming set of "Ten Little Indians" from these finger puppets.

Little "finger stalls" may be knitted or crocheted and decorated as finger puppets.

Small drawings could be cut out and pasted on heavy paper and fashioned into a finger ring. Illustrate a story with these tiny finger puppets.




## MITTEN PUPPETS.

Have the child trace around his hand while he keeps the middle fingers together. These will make the head and the thumb and little finger will serve as hands. Cut out this pattern and pin it on cloth. Cut out allowing for seam and sew according to the ability of the child. Use paper wads, cotton or nylon hose for stuffing. Add details 'ry stitchery, painting, or pasting.

## SOCK PUPPET.

An old sock makes a fantastic animal, dragon, serpent, or fish puppet. Place fingers in the toe and the thumb in the heel. Bring together and open and close to work the jaws. Half of the foot can be pushed between the fingers and the thumb to make a throat and the mouth can be opened wide. Applique contrasting material to the inside of the mouth. Add tongue, teeth, eyes, and other details. This type of puppet is similar to the Sheri Lewis ones. They are the most successfully animated puppets because their mouths are, easily synchronized with the voice of the puppeteer.

## PAPIER MACHE PUPPETS CONSTRUCTED ON A FORM.

A few coats of papier mache strips and pieces can be layered on a discarded light bulb. Do not cover the metal part. When the paper is dry, pound off the metal end and take care in covering the broken glass with narrow strips of pasted paper carrying them well up inside the bulb. TAKE CARE. Do not allow the young child to do this. Add features with pulp and sculptured paper. Dry, paint, and add details. The costume may be made from an old dress or a shirt sleeve. It may be simple or elaborate. Be sure the costume allows free movement.

The head could be modeled with Plasticine clay over the index finger, Coat with vaseline and then with papier mache strips. Dry and cut in half behind the ears. Scoop out the clay, put the halves together with narrow strips of pasted paper. A ridge for the shoulders can be added at the base of the neck to fasten clothing more securely. Clothing could be pasted on. Use elastic or rolled paper coils at the wrists to make the fingers snug and aid in the manipulation of the puppet.

## Staging A Show...

Puppets can be used without stages but if you want an audience type show, some type of a stage is necessary. It can be simple or elaborate depending on the ability of the children who are giving the show.

Use a DESK or a TABLE as a stage. Cover the front and ends with a blanket or sheet to conceal the puppeteers. Turn the table on its side with the top facing the audience. Put a table leaf or a board over the top legs to serve as a stage. Puppeteers sit, kneel, sit on the floor or on low stools. A table in a doorway allows for suspending a back drop of paper or cloth.

Cut an opening in the center panel of an old SCREEN. Fasten a board for a stage, add curtains and decorations. Puppeteers stand or sit behind the screen and lift the puppet up to show in the opening.

For outdoor summertime shows, puppeteers can perform behind a HEDGE or a FENCE. A BASEMENT or a LOW WINDOW could frame the show. A window shade could serve for a curtain. The audience could sit on the lawn and watch.

Cut the bottom out of a large CARDBOARD or WOODEN BOX for a more permanent type theater. Use the bottom as the stage. Manipulate the puppets from below. Legs of wood could be added to each corner. DRAPERY can be put around the front and sides to conceal the puppeteers as it adds to the appearance. A CURTAIN pulled by hand or manipulated with traverse drapery rods will add.

SCENERY will add to the reality of the production. Be sure to keep it simple so it does not detract from or interfere with the puppets. A few trees will suggest a park and a few ojverlapped rectangles will suggest the buildings on a city street. Poster paint, chalk, paper cut outs on wrapping paper, tag board, muslin or window shade will be effective. For some productions, drapery is best. Do not clutter the stage with PROPS. Be sure to keep them simple and in proportion to the puppets. Some can be hung by strings from a wire stretched from overhead. Be sure the props do not interfere with the action of the puppets. GENERAL LIGHTING can come from Christmas tree lights used as foot lights or around the opening. SPECIFIC LIGHTING can come from spots, flash lights, or goose neck lamps. Gelatin wheels and covers of tissue paper give "mood". Luminous paint will give a "spooky" effect. APPROPRIATE MUSIC will add. Children will enjoy experimenting with SOUND EFFECTS.

THE PRODUCTION OF A PUPPET SHOW WILL INCORPORATE MANY ART EXPRESSIONS. STRESS PUPPETRY AS HISTORIC ART FORM.


A MARIONETTE is a puppet which is manipulated by strings. It can be simple or it can be extremely complicated. Some hand-carved wood marionettes are rare works of art which have found places of honor in museums throughoui the world.

Simple marionettes can be jointed figures of cardboard or cloth stuffed with cotton and equipped with strings.

For more complicated marionettes, papier mache heads and wooden dowel bodies can be combined or the entire figure can be carved from wood. If easily carved balsa wood is used, a core of hard wood must be inserted in places to hold the screw eyes. Loosely jointed parts: head, torso, hips, upper arms, lower arms, upper legs, lower legs, and feet are assembled with screws or strips of leather for flexibility. Hips, feet, and hands should be weighted with sheet lead, solder, sinkers, or shot for effective manipulation.

The control bars could be made of $2^{\prime \prime}$ pine batten. Stringing can be done similar to the illustration or it could be greatly simplified. Begin at the shoulders with a $45^{\prime \prime}$ long string. This will guide the length and balance of the other strings. Other ways to string can be explored. Whatever clothing is used, it must not interfere with the free movements of the marionette.

IT TAKES MUCH PRACTICE TO MAKE A MARIONETTE BEHAVE WELL. Standing in perfect balance is the basic position and is accomplished when the right hand picks up the foot bar and the left hand holds the control with fingers between the head bar and the shoulder strings. Walking, bowing, turning the head, raising the hands, sitting, and crawling can be accomplished by varying the tension on the control strings. SKILLFUL CONTROL TAKES PRACTICE.

PAGE 44 3D RIGHT POCKET

## Stitchery...

MATERIALS AND TOOLS: Begin with heavy yarn. Then introduce string. thread, twine. variety yarn, metallic, lace, ribbon, ravelling, braid, beads. buttons, and other materials to provide a greater challenge. Begin with loosely woven fabrics as burlap or monk's cloth. Advance to coarse nets, plastic bags, screening, canvas, huck toweling, gingham, and finer weaves. Velvet and satin and similar materials will challenge talent. Coarse tapestry needles are best for beginners. When skill develops, introduce finer ones. Scissors, embroidery hoops, frames, and a pressing iron will help.

USES FOR STITCHERY: Encourage good taste in the creation of piclures, wall hangings, costume and home embellishment. Whenever possible, relate stitchery as a historic art form. This will develop, anpreciation.

## basic stitches to COMbine and use Creatively:

1. RUNNING STITCH: Run the needle in and out to form a stitch. Vary length, spacing and direction.
2. THREADED STITCH: Weave a second stitch through a running stitch. For variety, use combinations of colors, weights, and types of threads.
3. COUCHING STITCH: Pin a thread or group of threads on top of the fabric. With threaded needle, over sew the first thread with small stitches to secure. Variations in type, color, weight, and direction of stitches can be explored.
4. BACK STITCH: Work from right to left. Stitch one stitch. Insert the needle at the beginning of the stitch and bring out a stitch ahead. Repeat, The back stitch resembles machine stitching.
5. OUTLINE STITCH: Stitch from left to right. Keep the thread either ABOVE or BELOW the needle at all times. Stitch a back stitch and bring the needle out where the last stitch went in. Vary by making the sti.ches in a curve, leaving spaces, combining directions, and using different colors and thread.

6 HERRINGBONE STITCH: Work from left to right along two marked or imagined lines parallel or not. Begin by bringing the needle out on the line at the lower left, take a short back stitch a bit to the right on the upper line. Keep the thread UNDER the needle. Take a back stitch on the lower line a bit to the right with thread ABOVE the needle. Repeat. Keep spaces even. The crosses may be secured with running stitches.


## Stitchery...

7. CROSS STITCH: Work from left to right or right to left keeping the needle in perpendicular position. Make a row of evenly spaced slanting stitches of equal length. Work back in the opposite direction in the same way.
8. SATIN STITCH: Stitches are made very close together over and over to fill an area solidly. Slant the needle slightly to keep the stitches straight. This stitch can be done over a padded area or in opposite directions to give a raised effect.
9. FRENCH KNOT STITCH: Bring the needle up. Wind the thread around the needle two or three times with the fingers of the left hand. Insert the needle close to the place it came out. Adjust tension of the thread with the left hand as the needle is inseated into the fabric.
10. CHAIN STITCH: Bring the needle up from the back. Insert it in the same place. Take a stitch as the thread is kept UNDER the needle. Draw it up making a loop. Insert the needle again and repeat.
OPEN CHAIN OR LADDER STITCH: Stitch on parallel lines. Bring the needle out on the left, insert it on the right. Keep the thread UNDER the needle and bring the needle out on the left side below the first stitch. Insert on the right keeping the loop UNDER the needle. Bring the needle out on the left side and repeat.
11. LAZY DAISY STITCH: Begin as chain. Insert needle just outside or below the loop to hold it. Bring the needle out to make the next stitch. Vary loop and stitch in length, spacing, and direction.
12. BLANKET STITCH: Work from left to right. Needle is brought out on the line, take an upright stitch to the right with the needle pointing down. Keep the thread UNDER the needle. Try variations.
13. FEATHER STITCH: Bring the needle up. With thread UNDER the needle and the needle slanting, make one blanket stitch to the right of the straight line. With thread UNDER the needle, make a stitch to the left. Repeat. Try grouping and other varieties.

APPLIQUE PROCESS: Lay a piece of fabric upon a larger piece. The edges of the top piece may be left raw and held down with running stitches or finished with a hemming stitch. Stitches may be invisible or decorative. As the process allows for variety in fabrics, shapes and sizes and any type of stitching, unlimited effects can be achieved. For a reverse applique, the opening may be cut in the larger piece and another piece under the hole. Edges can be finished or not and many approaches to decorative stitchery should be explored.

PAGE 46 SD RIGHT POCKET

## Origami...

ORIGAMI calls for simple tools and materials: squares of Origami paper, a flat surface for folding and 10 eager fingers. Origami paper comes in squares of different sizes. It is hand made, often beautifully hand printed, and comes in a variety of exotic colors. It can be purchased in stores which sell imported art supplies or from gift or novelty shops. Onion skin. typing. and stationery type paper could be used but nothing can take the place of genuine Origami paper.

PIN WHEEL (illustrated in the right panel)

- Start with a square. Find center by folding vertically and hortzontally. Fold 2 diagonal corners to center as in Diagran 1. " r
- Fold remaining 2 corners back as Diagram 2.
- Repeat these steps to obtain Diagram 3.
- Pull points A and B out to make Diagram 4.
- Pull out other 2 points. Make a hole in center, mount on a stick or a pencil.


## CUP and HAT (illustrated below)

- Begin with square, use diaper fold, Diagram I.
- Fold right side toward you on dotted line as Diagram 2. Fold left side back as Diagram 3.
- CUP: Tuck triangle A inside as in Diagram 4.
- HAT: Put thumb in opening and pull apart to make flat as in Diagram 5. Fold bottom up.
- Draw brim out at left and right as Diagram 6.


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## Origamic...

ORIGAMI is the art of paper folding which has been known to the Chinese and the Japanese as long as paper itself. This unique art form relies on the beauty of simplicity and precision. Patience, control, perseverence, and skill in following directions are important in ORIGAMI. The mental discipline developed through mastery in folding will become a motivation for imaginative use of paper. It makes an intriguing hobby and it will develop an understanding and appreciation of art forms of others.
The BASIC FORM (illustrated in the left panel)

- Start with a square. Make a diaper fold as in Diagram 1. Fold again as in Diagram 2.
- Pick up the top sheet at the arrow, turning outward and over, bringing point A to meet B as in Diagram 3.
- Turn the paper over, repeat step 2 on the reverse side as in Diagram 4.
- Fold outside bottom layers up on the dotted line as in Diagram 5. Repeat on other side.
- Fold comers C and D to the center. Turn over and repeat as in Diagram 6.
- Open the top layer and hold the lower section with one finger of the left hand over center line. Gently bring point $A$ out and up to the peak formed by the dotted lines turning outside edges of the paper inward at the same time. When the edges are creased down, a perfect diamond shape should result. Repeat on the other side to have Diagram 8.
The CRANE (bottom panel) is considered very lucky and every Japanese child folds paper ones. Begin with BASIC FORM, see 8.
- Fold side comers into center line, turn over and repeat for Diagrams 1 and 2.
- Fold lower points up turning them inside out at the same time as in Diagram 3.
- Fold head at P. Spread wings. Blow air into the hole at the bottom to spread crane.

PAGE 48 3D RIGHT POCKET

## Weaving...

WEAVING should be more than the interlacing of threads. It should be a personal approach to an art form which involves thinking, drawing and constructing with materials into an aesthetic whole. The process can be described as the interlacing of threads at right angles to each other. The WARP are the lengthwise threads and the WEFT are the horizontal threads woven through the warp. Variations in types of threads, introduction of nature materials and methods of their use will give individuality to the weaving.

BEGIN WITH PAPER where the development of techniques in the weaving process can be developed progressively from kindergarten through college. Unlimited types of paper can be used alone or in combinations as the weaver develops a variety of artistic and intricate expressions with superimposing, accenting, sculpturing and decorating. Try variations in cutting the mat and strips.

TRY DRINKING-STRAW WEAVING. Cut several straws in half and stick a string (carpet warp) through each straw. Tie ends together and put under a heavy book or weight. Push each straw close to the knot and begin the finger weaving with heavy yarn. As the weaving progresses, it is pushed up and off the straws which free it for more weaving. When the strip is the desired length, slide the straws off and weave the end warp strings together. More than one warp string could be introduced for variety. This type of weaving could be used for curtain loops, head bands, belts, or sewn together for larger articles.

SCRIM OR RUG CANVAS is stiff enough to hold its shape without a frame. Draw a design with a crayon or felt marker directly on the canvas, hold the pattern under the canvas, or weave spontaneously without a pattern. Use heavy yarns and tapestry needles. Combinations of techniques and materials will add variety and interest.

COTTON MESH as curtain materials, onion bags, and dish cloths are flimsy and need to be stretched on a frame. A piece of heavy cardboard could be inserted into the mesh bag to hold it firm and to prevent weaving through the second thickness. Grasses, dried flowers, raffia, reeds, ribbons, pipe cleaners, cellophane strips, and a variety of other materials used with tassels, lacings, loops, etc. will challenge a creative weaver.

IDEAS FOR WEAVING CREATIVELY


BEGIN WITH PAPER . .


## DRINKING STRAW WEAVIMG




TRY VARIATIONS


WOOD FRAME LOOM: STRING WARP AROUND GRADS AT EACH END

## Weaving...

BURLAP from washed potato sacks or colorful commercial type woven with open areas, drawn threads, ravellings. texture yarns, applique - and many nature materials will make unusual weavings.

WIRE MESH such as window screens. hardware cloth. or chicken wire will be cut with wire cutters. Bind the exposed ends with tape to prevent scratching. Draw a design with felt marker or weave spontaneously either in two or in three dimensions. Allow the characteristics of the mesh to determine the form the weaving should take. Unwoven areas, areas sprayed with paint. materials, and techniques will make this type of weaving unique.

CARDBOARD WEAVING. Make a loom from heavy cardboard in the size of the finished article. Draw lines $1 / 2^{\prime \prime}$ apart or according to the weight of the yarn to be used. To warp: fasten an end of the warp to the back with tape, bring to the front and wind back and forth, end to end, until all notches are looped. Carry the warp to the back and tie to the beginning end. Begin weaving with fingers, tapestry needle, or a tongue depressor (with a hole cut for threading yarn). Watch the tension so the weaving is kept even. Use a ruler, comb, or stick as a beater. Weave ends in and slip off loom. For circular articles use a CIRCULAR LOOM. Cut an uneven number of notches evenly spaced around the edge. Pull warp through these and through the center hole. Weaving can be done on one or both sides. Regulate tension to keep the work flat.

WOOD FRAME WEAVING. Use a picture frame, oil painting stretcher, forked tree branch, folding chair turned upside-down or a frame built of 4 strips of wood fastened at the corners with brads or metal fasteners. Drive a row of small brads evenly spaced along the ends. Tie the warp around the first nail, stretch to the first on the opposite end, back to the second nail until all the nails are looped. Try an imaginative approach in weaving. Use open spaces, geometric areas, textures, and additional materials. Dowels can be inserted to raise and lower warp threads. Fruit crates make good looms.

USES FOR WEAVING. In the home: Insert dowel through the loops of warp when removed from the loom and use it for a hanging. Small metal weights sewn to the bottom will keep it straight. Use as a room divider. Pillow tops, lamp shades, covers, afghans, and decorative accessories use the weaving well. For wearing: Purses, bags, mufflers, belts, head bands, and decorative trims will make appropriate use of the weaving. Doll clothes and coverlets will motivate the younger weaver.

## Paper Sculpture...

PAPER SCULPTURE is the art of forming in relief, intaglio, or in the round by cutting, folding, bending, and manipulating paper.

## MATERIALS AND TOOLS.

Begin with easily attainable, inexpensive, easy to manipulate paper such as wrapping, newsprint, construction, poster, typing, mimeograph. writing, shelf, and manila. As the child develops skills, use tag board, light weight cardboard, gift wrap, foil, tissues, crepe, mailing tubes, paper dishes, and boxes. As the child grows in his ability to solve art problems and make judgments about good three dimensional design, introduce cellophane, metallics, display boards, fine water color paper, and Japanese hand made papers.

Tools are few and simple. Begin with GOOD scissors, glue or paste, tape (transparent or masking in both single and double face), stapler. pase - clips, pins, and fasteners. Later add different types of knives, paper punches, ruler, needle and thread, and simple precision tools. As the child uses more difficult paper, introduce wire for holding, pinking shears, X-Acto knives, razor blades, and more complicated precision tools. A cardboard mat for cutting and a smooth surface for folding are necessary.

## experiences in the use of three dimension paper involve THE MASTERY OF BASIC TECHNIQUES IN:

TEARING. For mind-eye-finger coordination, for discovering characteristics of the paper and for exploring its limitations and possibilities. tearing is good.

CUTTING. Cutting should be done in a clean, continuous, free flowing sweep by holding the paper firmly in one hand and feeding it into the jaws of the closing scissors held in the other hand.

AVOID CHOPPING. As the child develops skill, knives can be used for slashes and cutting along steel rulers.

FOLDING AND SCORING. Folding must be done accurately for a crisp, tailored effect. In diagrams, dotted lines are folding lines. Folds in reverse alternation are accordion folds or mountain (up) and valley (down) folds. Such folds lend interesting light and shadow patterns. Scoring is necessary when folding on a curve or when folding heavy materials. It is a process of pressing a fine, dep, line into the paper so it will bend more easily. It can be made with the back edge of a scissor blade, a table knife, a knitting needle, or the tip of a modeling tool. Be careful so you do not cut the paper.


CUTTING ¢̧̧ FOLDING IN AND OUT


INTERLOCKED CARDBOARD STRIPS


## Paper Sculpture...

## THREE DIMENSIONAL PAPER CONSTRUCTIONS.

Nonobjective paper sculpture is an exciting challenge to the more proficient student as he explores paper in depth while making an aesthetic visual statement.

EXPLORE RELIEF DESIGNS. Use white construction paper or water color paper. White paper admits more subtle degrees of light and shade than colored paper. Different shapes can be cut in the paper and left in low relief or raised at right angles to the background to form shadow patterns. Cutting in and folding in and out without adding to or subtracting from challenges problem solving in spatial relationships. Inserting strips of paper, weaving, twisting and other irregularities should be tried.

ADVANCE TO FREE SCULPTURE. Use squares, cylinders or other forms. Cut, fold in and out, and crease into a new form. Lanterns for decoration can be made from a cylinder in which the walls have been pierced. Cut in open areas to create transparencies. Explore their tensions and compressions. Stage scenery, table favors, advertising displays and background designs are some problems offering challenging opportunities for expression.

BUILD WITH STRIPS OF CARDBOARD. This will increase a student's awareness of shape and spatial relationship and provide a good motivation for a unit on architecture. Use strips of heavy cardboard cut across half way and joined by an interlocking process. No paste or glue is necessary. Start with strips of similar width and gradually introduce a variety of widths. A more challenging problem is offered when the strips are folded at right angles.

BUILD WITH FOLDED PAPER STRIPS. This process will be a challenge to the more skilled craftsman. Strips of paper are folded lengthwise and used for building. A high rise apartment house, overhanging stories, stilt constructions and cantilevered forms all suggest ways the strips could be used as structural elements. By such exploration, the student will become more aware of his visual environment. Toys, buildings, and machinery will challenge the more inventive student as he becomes a more proficient craftsman. These constructions are extremely fascinating to the young sculptor and have unique display value. The AESTHETIC QUALITY should never be sacrificed for mere uniqueness.

## Paper Sculpture...

Scored lines must be parallel or radiate from one point. If they cross, a tiny cut at the point of intersection will relieve the tension.

CURLING. Hold the paper tightly and draw it over the blade of a knife or open scissors. The thickness of the paper and the amount of pressure used will determine the amount of curl. Rolling a strip over a pencil or over the edge of the table will produce a similar effect as the fibers in the paper are stretched. If many curls are needed, cut a fringe from folded paper and separate into individual curls.

PRESSING PAPER INTO PLACE. Cut out basic shapes carefully and score. With great patience coax. press. bend, and twist into the form desired. NEVER FORCE. Accuracy in measuring is important if forms are to fit well. Allow extra width for the third dimension.

FASTENING. Fastening pieces together calls for good craftsmanship. The beginner can use paste and staples. Tape looks like a bandage if it is not applied decoratively. The more advanced sculptor will use it invisibly or he will use paper by itself. Tabs, lacing, weaving, and folding will secure paper to itself. Little PADS in the form of triargles. squares or circles to hold or cushion layers of paper are effective. Wire and needle and thread make strong, invisible holds.

## eXperiences in the use of three dimension paper involve EXPERIMENTS IN FORMING:

CYLINDERS. Roll a sheet of paper, fasten at the top and. bottom for a basic form or support for many forms.

CONES. A cone varies from almost flat to extremely steep. All cones are made from a pie-shape wedge of a circle. A beginner could draw around a shape until he can use a compass. The width of the wedge determines the flare of the cone. The butted or overlapped edges are the radii of the circle and must be cut carefully to fit.

GEOMETRIC FORMS. A square. a circle, a triangle, a semi-circle or a tear drop can be made by looping and folding and pasting a strip of paper.

ABSTRACTIONS. Modifications of basic shapes in overlapped and cornected relationships made interesting new forms if GOOD DESIGN is emphasized.

EXTENDED FORMS. Make a cut from the outer edge of a square, a circle, or a triangle to the center. Pull it apart and suspend like a mobile. A shape can be folded any number of times and alternate slashes from one side almost to the other, unfolded, stretched and hung as a mobile will make attractive decoration.


SCULPTURED FORMS



## Making Things with Paper...

The pictorial illustrations show the many possibiltues of working with paper. Actual classroom results.

The top illustration at left is complicated and should be reserved for the advanced student. Requires patience.

The two pictures below show the cut and fold type of paper work which is quite successful at primary and intermediate grade levels. Good for developing spatial ability.

Simple paper animals call be made by the average grade school pupil. They need only to have experienced some of the basic paper work, and a keen imagination.

The next two illustrations show some floral paper work.

Use of corrugated paper for constructions and inventions by children will produce many satisfactory results.

The bottom two pictures remaining show some of the animal type structures children enjoy making, using the papier mache technique. We felt that actual pictures would help show some of the results we can expect from children.

When venturing into three dimensional paper work make adequate space provision for storage until their projects can be completed. All children can feel some degree of success when working with paper. Very little expense is needed. Much of the material can be gathered from discards found in the home.

## never underestimate the abilities of children.

PAGE 54 3D RIGHT POCKET

## Mosaids For Children...

Young children need the cutting and pasting technique that mosaic work provides. We can call it puzzle making. To the child this becomes a game of cut and join them again. The illustrations at right show two shape pull aparts. To help the young child avoid confusion. let them cut and immediately paste a piece at a time.
Simple shapes. forms, objects are used at the primary grade level. They can proceed to the next step in the mosaic work as illustrated to the right. Children put small torn bits into a drawing they have made of different colors disregarding any space between the paper bits. Overlapping is also disregarded. Keep it simple.

The second illustration of the fish is more difficult. The student keeps in mind spaces between the pieces. Note the varying sizes of the pieces. this avoids monotony. Try to keep the spaces between pieces uniform.
Once the technique is learned children can work alone and can be easily stimulated to work on these at will. Explorations with other materials besides paper could be suggested. Can lead to group mural activity.

The following can serve as subject matter for mosaics:

| Leaves, many shapes | trees | designs | butterfly |
| :--- | :--- | :--- | :--- |
| Fish, real \& imaginary | faces | animals | abstracts |
| Fruits and vegetables | birds | objects | people |
| Cars, trucks, \& train | moths | insects | church |

## SUGerstions:

- Paste pieces on dark background paper which creates a leaded stained glass window effect quite unusual.
- Draw an object, cut out the shape and proceed to cut it apart. Repaste on another sheet. leave tiny uniform spaces
- Train children to keep on hand an old envelope, this holds their unused pieces. Quick cleanup - less loss.
- Make many color washes for learning technique . . . then cut them into usable pieces for later mosaic ideas.
- Magazines provide color advertisements which make a good value study as well as pieces for mosaic ideas.
- Collect many examples of the many kinds of mosaics used today such as the beautiful decorative murals on the many public buildings found in Mexico City.
- Use up your old scraps of colored paper with paper punch. Children like to punch out the colors. Store them in separate envelopes for future mosaic work.



## Mosaics. . .

The illustrations at left show some of the applications of mosaics previously described. Many more are possible and brief descriptions will give the pupils several ideas in their experimentation with mosaics.

Have the children save seeds of many varieties. You can purchase different kinds at any seed store. The pupils can also save watermelon, sunflower. melon seeds; peas, corn and rice. These can be placed into small nut cups for use. The rice can be tinted by letting it soak in color.

Egg shells crushed make interesting mosaics . . . pre-dye then for color variety. They do not require careful placement and can be scattered over the small glued areas as they are needed. Good for elementary pupil.

Many of the mosaic projects, because of requirements of time, make good seat work. The students cant wait to get at their work when other subjects are done.

Ribbons are often thrown out at ribbon counters. They make excellent mosaic material. All ages enjoy this activity. Start collecting soap. gum, candy wrappers, colored cellophane and other material for mosaics.

New material will work only if you recognize its potential. Yarn can be used as space dividers.

Ceramic and linoleum tile will provide hours of enjoyment in abstract designs. A class can work cooperatively in collecting old dishes, bottles, tiles, corks, wood, and other discarded material. They work together to produce large mosaics which are framed.

Care must be taken when cutting glass . . . protect eyes and hands. Caution the children not to touch broken glass. Have band aids ready. In most instances keep the choice of material such that children need not be concerned with cutting themselves.

Older children like to explore all possibilities of mosaics . . . stones, pebbles, corn, beans, etc. This is a disciplining type of activity requiring patience.

The mosaics are unlimited for all ages and results are only limited to the imaginative uses put to the various materials one gathers. This is one area where the cost factor can be cut to a bare minimum. You will find that liquid glue is a must. Mosaics can be fun.

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## Design Line...

Line describes ideas, emotions, objects, and situations by three properties that produce quality, character, and variety.

- Experiment with linear rhythms exploring the properties of line.


## - DIRECTION

- Show speed of movement with vertical, horizontal, and diagonal lines.
- Use curved lines for flowing rhythms.
- Use jagged lines for angular rhythms.
- Use twisting lines for erratic rhythms.
- Cross lines to create points of conflict.
- Combine movements for interest.
- Combine movements to describe form.
- color
- Allow line to advance or recede in space by varying light and dark value.
- By pressure on drawing instrument.
- By retracing to darken.
- By moving within a single line.
- By use of medium characteristics.
- WEIGHT
- Use thin lines for delicate, graceful, and fast moving rhythms.
- Use thick lines for heavy, sturdy, and slow moving rhythms.
- Vary thick and thin quality within single line movements.
- Vary thick and thin quality by character of drawing medium.


## Design Line...

Line describes space by continually changing directions until it comes back to the starting point or crosses itself in its return movements.

- Character of design is created by the type and quality of line.
- Variety of space is determined by the number of changes in direction, the times the line crosses itself, and by the closeness of line to line.


## experiment with linear description of space.

- Describe space with thick and thin line moving in flowing rhythms.
- with thick and thin line moving in angular and jagged rhythm.
- with textured line.
- with broken line.
- with a combination of straight and curving lines.
- Consider linear movements as contour description of solid form and empty space.
- Identify solid form by shading with color and texture.
use linear experiments in applied design activities.
- Two Dimensional Design
- Collage
- Calligraphy
- Stitchery
- Lettering
- Weaving
- Textile decoration
- Printing
- Ceramic decoration
- Three Dimensional Design
- Mobiles
- Stabiles
- Wire Sculpture
- Assemblages



Form is a solid object having dimension in space. Form has weight, mass, and contour.

A 2D form has one plane moving in height and width. It is flat.

2D forms are typical of painting, drawing, and decorative design.

A 3D form has more than one plane moving in depth as well as height and width. It is thick.

3D forms are typical of ceramics, sculpturing, and structural design.

On a two dimensional surface the illusion of form having thickness in depth is achieved by shading structural planes as effected by light and shadow.

A SHAPE is a two dimensional form described by line or by contour edge.

SHAPE also refers to the contour of a three dimensional form.

All forms are variations of the basic geometric shapes and solids - the square, circle, triangle, cube, sphere, and pyramid.

## EXPERIMENT WITH 2D AND 3D FORMS IN DESIGN.

- Scribble design - view shapes as solid form and empty space - shade in color and texture.
- Create the illusion of depth by shading solids in three dimension.
- Use geometric shapes for design.
- Allow form to surround and penetrate other forms and to advance and recede in space.
- Use realistic forms geometric in shape.
- Reduce nature forms to basic geometric shapes.


## Design Form...

- Draw and paint natural and man made objects in a still life, birds, animals, landscape . . . as a study or pictorial composition.
- Apply designed realism and free form to -
- Collage
- Stitchery
- Mosaics
- Printing
- Textiles
- Copper Enameling

- Apply designed realism and free form to -


## Relief structures

- Cardboard - paint or coat with plaster
- Wood assemblage
- Carved plaster plaques
- Carved wood plaques
- Plastic assemblage

Structures in the round

- Paper sculpture
- Paper mache
- Stabiles and mobiles
- Ceramics

- Sculpture
- Wood
- Stone
- Clay
- Synthetic stone


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## Design Space...

In three dimensional art, space is the actual air mass that exists in and around the volume of form.
In two dimensional art, space is an illusion of air mass, depth, or distance. The illusion is achieved by the intervals between forms, by overlapping lines and forms, by receding and advancing color, and by mechanical lines of perspective.

The relationship of line, form, and color depends upon the amount and variety of space in which they exist.
Space is sometimes considered negative form with a size, shape, and character of its own.
Space and the break-up of space are the first problems in every work of art. The size and proportion of a two dimensional surface and the amount and shape of a three dimensional air mass determine the type of line and form to use for spatial design.

- experiment with line and form in space design.
- Vary size and proportion of two dimensional surface.
- Square
- Rectangle
- Circle
- Triangle
- Vary direction of two dimensional surface.
- Vertical
- Horizontal
- Vary size of space intervals between lines and free forms.
- Vary size of space intervals between lines and shapes of real objects.
- Overlap forms and shade to give feeling of depth.
- Use highlight and shadow to describe forms with thickness and depth.
- Describe form and space with advancing and receding color.
- Use mechanical perspective.


## Design Space...



- Draw and paint real objects in a still life composition.
- Draw and paint real objects in a landscape composition.
- Abstract postive form and negative space into flat patterns existing in shallow depth.
- Abstract positive form and negative space into lines and $f^{\prime}$ anes of overlapping transparencies.
- Abstract positive form and negative space into lines and planes that extend beyond their limits and divide other forms and spaces into inter-related planes.
- Observe pictorial material from various points of view.
- Eye level

- Aerial - looking down
- Aerial - looking up
- Experiment with structural designs in actual space.
- Stabiles and mobiles
- Sculpture
- Ceramics
- Assemblages
- Stage sets
- Architectural models

- 





## Design Texture...

Texture is the surface quality of a plane or planes inherent in the structural material.

Texture gives a tactile as well ass a visual impression.
Texture adds interest and variety to structural form, enriches color, and aids in description and recognition.

- In two dimensional art, symbolic line is used to imitate the textural quality of natural materials or to create imaginary surface patterns.
- In three dimensional construction, the actual texture of natural materials is incorporated into the design, or the surface of the materials may be modified by artificial means to add to or enrich the natural texture.


## experiment with texture in applied design.

- Use line and shading to depict imaginary textures in free form designs.
- Use line and shading to depict real textures in free form designs.
- Describe realistic objects by imitating natural textures.
- Draw and paint natural and man made objects. Observe variety and contrast of texture in still life composition.
- Draw and paint natural and man made objects. Observe variety and contrast of texture in:
- Landscape composition
- Animal studies
- Floral designs
- Figure studies

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## Design Texture...

## EXPERIMENT WITH COLLAGE.

- Paper collage - fold and cut textural patterns.
- Paper collage - use printed textures from magazine illustrations.
- Scrap material collage - use natural textures for variety and contrast.
use texture to enrich decorative design.
- Wrapping paper
- Wall paper
- Commercial art
- Leather craft
- Jewelry
- Textiles
- Stitchery
- Printing
- Posters and lettering
- Metalry
- USE TEXTURE TO ENRICH STRUCTURAL DESIGN.
- Ceramics
- Sculpturing
- Stabiles
- Industrial design
- Mosaics
- Puppetry
- Assemblages
- Mobiles
- Architectural design
- Stage set design


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## Drawing Chalk...

Chalk and pastel are crayons of pure pigment combined with enough filler and binder to mold into a stick form. The binder does not serve to hold the pigment to the drawing surface. The pigment will smear or brush off unless sprayed with a fixture.

- Apply chalk in strokes of various lengths.
- Vary width of stroke by alternating point or edge of crayon and broadside of crayon.
- Mix colors by working one color over another. The colors will blend together according to the amount of pressure applied - or more blending can be achieved by smudging with fingers, paper stump, or cotton swab.
- Variety of hue and value may be obtained by mixing light and dark colors, warm and cool colors, or complementary colors.
- Greater variety may be achieved by mixing the colors with white for highlights and black for shadows.
- Distinct edges and sharp lines are difficult to retain while the drawing is in process. Crisp accents of highlights and shadow or line and texture may be applied as a final step.
- Do not overwork, results in a smeared look and gives an unsatisfactory experience.
- Place some chalk on paper edge, can be straight or curved. The color can be rubbed off as stencil and repeated. Gives an air brush effect.


## Drawing Chalk...

## CHALK VARIATIONS

Chalk and Wet Paper

- Dampen paper with water, milk, or liquid starch.
- Draw directly into the wet surface.
- The colors will bleed out and mix in accidental blends.
- Milk and starch act as a fixative.

Chalk and Milk

- Dip chalk crayon into milk - use powdered skimmed milk or buttermilk for economy and convenience.
- Allow chalk to soften slightly in liquid.
- Apply boldly to paper - softened chalk piles up in an impasto of color.
- Mix and blend by applying strokes or layers one over and into another.


## Chalk and Watercolor

- Outline and shade - do nc cover all areas.
- Spray with fixative.
- Complete sketch with transparent watercolor.
- Allow watercolor to cover some areas not colored by chalk and to mix and blend with the chalk in other areas.
- The chalk gives brilliancy and depth of color to the watercolor washes.
- Alternate layers of each medium if desired.
- Apply washes over unfixed chalk if more spontaneous color mixtures are desired.

Chalk and lii

- Shade India ink and felt tip pen drawings with colored chalk.
- Add linear descriptions to a chalk drawing with pen and ink, brush and ink, or felt tip pen.


## Mixed Media

- Combine colored chalk with tempera or acrylics for varity of texture and color.
- Spray with fixative.
- Alternate layers of various media.
- Add linear accents with ink.



FOR VARIETY, CHARACTER, AND MOOD
USE:

- Curving lines only - create round flow form.
- Straight lines only - for squared jagged form.
- A combination of both.


## after initial space break-up:

- Select interesting shapes and continue development of scribble lines.
- Consider some as filled space and some as empty space.
- r'ade filled space with color, value. a.id texture.


## MATERIALS:

Pencils, Charcoal sticks, Chalk, Crayon, and Ink.

## ADDITIONAL ACTIVITIES:

- Repeat designs for making textiles, wallpaper and gift wrapping - also wrapping for all occasions.
- Unit design for mosaics, collage, plaster, metal, or wood plaques or reliefs; stitchery, \& weaving, book covers, metal or leather tooling.
- Fiee form or non-objective drawings and painting.


## Scribble Drawing...

Scribble lines break-up of space sometimes describes real objests. The objects will appear distorted and caricatured. Discovery and recognition of them help develop imaginative use of form and space for design.

- Break up the picture plane with scribble lines that alternate directions, cross each other to enclose space.
- Retrace the lines adding color and weight, this stresses the most meaningful and unique shapes.
- Study the shapes and relate them to the basic shapes of real objects.
- Observe first shapes of familiar objects.
- Experience will develop child's ability to associate abstract shapes to real shapes.
- When one object has been discovered, use it as a key to recognition of other shapes.
- Ask yourself - What is it doing?
- What environment might it be in?
- How can I aust this to other shapes in the pictorial design?
- Develop the shapes as they are for imaginative and spontaneous representation.
- Improve the distortions for more realistic representations.
- Keep as many of the spontaneous lines and shapes as possible.

Materials: Pencils, charcoal, chalk, ballpoint pens, crayon, ink, and watercolors.

## ADDITIONAL ACTIVITIES:

Use the sketches as ideas for finished drawings and paintings in watercolor, tempera, oil.
Trace the design retaining scribble character. Reduce or enlarge them by redrawing.



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## Pencil Drawing...

## SHADING - LINE STROKE

Shade from light to dark with separate parallel strokes using the point of the pencil.

## VARY COLOR BY:

- Pressure on the pencil lead
- Closeness of line strokes
- Overlapping of line strokes
- Crosshatching for effects


## VARY QUALITY OF TECHNIQUE BY:

- Controlling your strokes

- Sketchy irregular strokes

- Trying directional stroke
- Sharpness of pencil point Rounded, pointed, squared tips.


## BROADTONE:

Shade from light to dark using the broad side of the pencil lead for a smooth, even gradation of color values.

## VARY THE COLOR BY:

- Pressure on the pencil lead
- Overlapping areas of value.


## VARY QUALITY OF TECHNIQUE BY:

- Color gradations achieved by blending with a pencil lead.
- Color gradations achieved by smudging with fingers, paper stump, cotton, or tissue.




## Charcoal Drawing...

Charcoal is a flexible medium especially suited to a free, sketchy drawing technique.

- Natural vine charcoal is the traditional medium. It prodaces a soft velvety quality of line and shading. Crisp lines and edges are difficult to obtain.
- Processed charcoal is a mixture of charcoal pigment and a binding medium which is molded into crayons or lead for wooden or paper bound type pencils. It is available in various degrees of hardness which permits a more controlled use of the medium. Lines and edges may be blended and soft and sharp and crisp. Color values can range from very light to deep, rich black.
- Charcoal pigment does not adhere well to drawn surfaces. A rough textured paper provides tooth for holding the pigment. but for permanency the drawing should be sprayed with a fixative. The best fixatives are the clear lacquer or plastic sprays. Hair spray works well, and a milk spray makes a good substitute. See the recipe secton of the art guide.


## LINE DRAWING

- Using the point or the edge of the point of the charcoal stick, pencil, or crayon, outline in a controlled or sketchy manner.
- Vary color and weight of line by pressure of the stroke.
- Vary color and weight by retracing lines varying the pressure of the stroke.
- Vary color and weight by smearing the line with a finger, paper stump, cotton, tissue.


## MATERIALS:

Charcoal sticks, pencils, or crayons.
White drawing paper, charcoal drawing, and fixative.

## Charcoal Drawing...

## SHADING

Use the broad side of the pencil or crayon.
Begin with light values. Add succeeding layers of dark values. Smear and blend in even gradations.
Leave white of the paper for highlights or if you wish pick out light values with a kneaded eraser.
Shade and model for atmospheric quality of space and $t c^{\circ}$ with no descriptive outlines. Allow the edges of the for $r_{1}$ blend into the background.
Shade and model adding the linear accents for interest 2- $^{-}$ descriptions.

Make outline drawing. Shade and try blending the value pa:terns in reference to pre-established contour lines. Accent the linear descriptions as a final touch.


## LINE STROKE

Apply strokes parallel to other strokes varying the closeness of line.

Vary directional movement within strokes. Waved, curved, straight, or zig-zagged give pupils the possibility of variety in shading.
Crosshatch and overlap the strokes.
Allow smear of pigment to add to the gradation of color but keep line stroke quality if at all possible.
Use texture of line stroke variati ns which add color and interest.

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## Gesture Drawing...

The character of an object is inherent in the basic movements of its structural lines and planes. Scribble drawings to make quick ob: ervations of the many basic movements. Encourage simplification of the child's statement, expressiveness of representation and the decisive analysis.

## ACTION SKETCH

- In one minute or less scribble the basic movement of an animate or inanimate object.
- Observe action of lines and planes from center of object to contour outlines.
- Observe action of lines and planes from contour to the center of the figure.
- With experience add:

Volume as described by light and shadow.
Descriptive detail.

- Extend the length of time to $2-5$ minutes, depending upon the object and the situation.


## EXTENDED GESTURE

- Sustain period of observation and drawing from 5 to 10 minutes.
- Move swiftly from area to area using scribbled line at all times.
- Correct movement of lines and planes.
- Correct proportion of line, plane, and space relationships.
- Do not erase incorrect lines - continue scribble until correct observations become more obvious.
- Express solidity of form by extended scribble in shadow areas.
- Add descriptive detail as needed an as time allows.
- Final accent lines may be used to edge patterns of scribbe planes for description.
- Extended gesture may be observed for 30 minutes or longer.


## Gesture Drawing...

## EXTENDED GESTURE FOR COMPOSITION

A group of objects in space may be observed with quick scribble for the unusual pictorial design.
" Select the objects from pictorial situations.

- Determine the basic shapes of the objects.
- Scribble form and space relationships to the picture plane.

Begin with trial placement form in space.
Keep scribble line fluid and changeable, until proportion of form to form and the placement of form in space is pictorially correct.

Add linear accents as desired effect is achieved.

- Establish an interest in foreground, middleground, and background areas of a pictorial space.
- Determine the patterns of light and shadow.
- Develop sight movements in linear rhythms.
- Discover focal point or center of interest.


## MATERIALS:

Pencil, ballpoint pen, charcoal, felt tip pen, chalk, crayon, pen and ink.

## ADDITIONAL ACTIVITIES:

Preliminary studies for finished drawings and paintings.
Finished sketches in extended gesture.



## Drawing Grease Pencil...

Line drawing and shading with a grease pencil is rendered in a manner similar to the techniques we use with a graphite pencil. Although a wide range of value is possible to achieve, the medium is most prized for the strength and boldness of its rich black when used spontaneously for sketching. It is a traditional medium for political cartooning.

Apply in line stroke.
Vary color and weight of line by pressure and by retracing strokes.

Use boldly for free sketching.

- Hatch and crosshatch for texture and shading.

Use carefully for tonal shading.

- Vary shading by blending tonal values with the pencil point.
- Smudging with finger or paper stump is not effective, therefore not recommended.

Use on rough textured papa.

- The pigment marks the top surface patterns leaving the indented patterns the light of the paper. A shaded area of broken or pitted color is produced.
- Gradations of color value pitted by textured paper may be reproduced commercially in a line cut process.


## MATERIALS:

China marking, lithographic pencils, textured paper.

## ADDITIONAL ACTIVITIES:

Drawing on stone, metal, or paper plates for lithographic printing. Combine with grease crayon.

Combine with crayons and liquid tusche.

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## Drawing Was Crayon...

$W_{i}$ - crayon responds well to a free sketchy technique. The soft medium of the crayon encourages bold statements in broad line and rich coloring. Where careful rendering is desired, crayons of varying degrees of hardness are available for use.

- Work boldly and directly, drawing and shading in a spontaneous manner.
- Use one color, varying values from light to dark.
- Shade solid areas blending with point of crayon.
- Shade using line and texture strokes.
- Vary texture by lifting crayon from shaded areas by pressing tip of crayon to paper and lifting up quickly.
- Vary texture by etching shaded areas with a sharp pointed knife or pin.
- Use more than one color mixing and blending with overlapping strokes.
- Use more than one color stressing outline by the use of black or other dark colors.


## MATERIALS:

Wax crayons
Liquid tusche
Oil crayons
Paper

Grease crayons
Watercolor crayons

## ADDITIONAL ACTIVITIES:

Combine with an ink wash.
Combine with a watercolor wash.
Combine with a liquid tusche technique.



## Pen and Ink Drawing...

The pen point produces a crisp line drawing, concise in style of rendering. Variations and freedom of the line quality and drawing technique are determined by the type and flexibility of the metal point.

- Flexible nibs with fine points.

With a light touch draw with thin sketchy lines.
With varying pressure to spread flexible point. draw with thick and thin lines.

- Rigid metal nibs with fine and medium points.

Use for controlled lines with little or no variation in width.

Vary width of line by retracing.

- Rigid metal points with round points.

Use for broad lines of equal width.
Use for bold outlining.
Retrace parts of line for thick and thin variations.

- Rigid and flexible metal nibs with square points.

Draw broad stroke lines by pulling point forward.
Draw thin stroke lines by moving point to side.
Alternate directions within a single line stroke for thick and thin variations.

## MATERIALS:

India ink, penholders, and penpoints and paper.

## ADDITIONAL ACTIVITIES:

- Use found materials for pen points. Twigs with broken or frayed tips, sticks, swab sticks, match sticks, tooth picks, etc.
- Make old style quill pens. Sharpen and split turkey and goose feather tips. Sharpen, split bamboo, balloon sticks, or sucker sticks.


## Den and Ink Drawing...

## SHADING

A line stroke shading technique is used for rendering a shaded pen and ink illustration.

- Parallel Strokes

Vary color by the closeness of stroke.
Vary color by the thick and thin line.
Vary quality by length of the strokes.
Vary quality by direction of strokes, straight, curved, wavy, or zigzagged.
Vary quality by controlled drawing or free technique of drawing.

- Crosshatch

Overlap parallel strokes alternating directions. Each layer darkens value of shaded area.
Vary color by the closeness of stroke.
Vary color by leaving parts of previous shading strokes as light values.
Alternate strokes and cover only the areas of each sucseeding darker value.
Vary quality by controlled or sketchy technique.

- Textural Shading

Add variety and interest to line strokes shading by:

- Stipple - dots made by pressing point of pen directly to a paper.
- Splatter - dots made by flicking point of pen to release ink in an irregular blob.
- Dashes - broken lines made of short strokes of the pen points.
- Natural Texture - imitation of surface qualities using outline strokes in group patterns to vary color of areas and explain the nature of the form.


## ADDITIONAL ACTIVITIES:

Combine with other media - ink wash, and dry brush, chalk, watercolors and tempera paint.

## Brush and Ink Drawing...

## BRUSH LINE

Draw quickly and freely with a watercolor brush.
The quality of line varies with the type brush.

- A round brush best for a bold, broad line.
- A pointed brush, .specially a Japanese one, very good for a thick and thin line.
- A worn brush suitable for an irregular line.
- A square tip brush for a chiseled edge thick and thin line. Excellent for lettering.

Outline and shade using hatches and crosshatches.

## DRY BRUSH

- Use a round, pointed, or square tipped hair or bristle brush.
- Wipe on paper towel until almost dry - - let the bristles separate.
- Apply lightly to produce shaded values of broken color.
- Blend graded values working coat on coat until the darkest values are achieved.
- Add accent lines in dry brush or any other brush line technique.
- Combine with pen line for variation.


## MATERIALS:

India ink, brushes of all types, paper.

## Brush and Ink Drawing...

## INK WASH

Mix the ink with water. Use several containers, a mixing pan with compartments, and mix the various gray values from light to dark.

Apply light values to all areas of drawing, leaving the white of the paper for highlights.

Apply darker values, allowing each to dry between applications. Blend value into value overlapping with brush strokes.

Drawing may be completed with washes with no linear description, modeling, dimensional form and space, with gradations of color value.

Linear descriptions may be added with a brush or pen or both.

## FOR VARIATION:

Apply dark values to light values before they dry allowing color to blend.

Keep entire sketch damp working, blending dark and light colors in manner similar to the wet in wet technique.

If the paper dries - dampen it with clear water and continue working.

Interesting lines and textures with pen point may be added to the wash technique. Allow some :rokes to blur into the damp areas, others to stay crisp on dry areas.

## MATERIALS:

India Ink, Watercolor brushes, Mixing pans. Paper.


## Felt Point Pen Drawing...

A felt point pen is a flexible drawing medium, with smooth points and free flowing ink. The pens may be available in fountain pen sets with replaceable or refillable cartridges and interchangeable points.

Other styles are inexpensive and dispose. le pencil slim penstaffs or stubby marker type cartridges.

The ink varies from a water soluble medium to a volatile oil medium and may be obtained in many colors.

Points vary in size and shape, square, round, pointed, and are broad to fine line in thickness.

- Draw and shade using line stroke technique.
- Vary line quality for outlining or shading by the type of point.
- Vary color and weight by pressure on point to control flow of the ink.
- Overlap and crosshatch strokes for value variations. Some bleeding of the ink will achieve a broadtone quality in the otherwise line stroke shading.
- Use pens of various freshness. A new pen flows freely and too easily produces the dark values. An old pen flows less freely and permits more control of light to dark.
- Excessive ink flow may be controlled by wiping point on tissue or paper toweling to dry out the point.
- The ink is transparent. Line and shaded values have a wash quality. This is most effective when combining more than just one color in a drawing.


## MATERIALS:

Felt point pens, felt point markers, paper, - suitable to all types.

## ADDITIONAL ACTIVITIES:

Combine with transparent watercolors.
Combine with colored chalk drawings.

## Ball Point Pen Drawing...

A continuous flow of ink and an easy movement of the smooth point of a ball point pen make this an effective tool. for sketching. The line quality is thin, regular in color and weight, more than that of other drawing mediums.

Draw and shade using a line stroke technique.

Variety of line is achieved by the ease oí a directional change.

Variety of weight and color is controlled by pressure on the point but more often by the retracing of lines.

Controlled line stroke outline and shading produce drawings of delicate quality.

A free sketchy use of the pen produces bold scribble drawings.

Various colors are available and may be used together in one drawing with an interesting effect resulting.

Red, brown and black ink gives the most pleasing results in color gradation from light to dark values.

## MATERIALS:

Ball point pens of various colors, paper.


## Drawing Scratchboard...

Scratchboard drawing imitates the prints of wood engraving and wood blocks. Sharp lines and light and dark patterns with crisp edges are characteristics of the ink technique used here.

- Cover scratchboard with a coat of ink. Use a brush, give the paper a flat, even coat black. Two coats may be necessary for even coating.

Scratchboard paper is a special paper commercially prepared. It is coated with a fine white plaster.

- Trace drawings on inked surface using some chalk covered paper as a carbon.
- Scratch out the desired lines with a sharp pointed tool, scratching through ink layer to expose a white plaster coated paper.

Scratchboard tools that fit into pen holders are the best points to use. Pins or needles work satisfactorily. Sharp pointed knives may be used.

- Line and shade in stroke and crosshatch.
- Add texture and shading variations with: dashes, dots, gouges, and linear symbols of natural texture patterns.
- Scoop out large areas of white with broad side of knife or scratch tool.

If areas of white are large and predetermined - do not cover when applying ink coating.

- Scratch away as little as possible of the plaster coating.
- Corrections may be made by adding ink. Allov to dry, then scratch through again.

MATERIALS:
Scratchboard, India Ink, Brush, Scratch Tools.

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## Sunk Drawing Scratchboard...

If scratchboard paper is too expensive or too difficult to obtain, an inexpensive and convenient paper substitute may be used.

White, wax coated, freezer paper.
Kitchen wax paper.

Wrap around stiff cardboard. Tape to back with masking tape.

Add opaqueness to kitchen wax paper by using a white cardboard or by covering the cardboard with a white drawing paper.

Dust surface with talcum powder. Rub into the wax coat. Brush off the excess powder.

Cover with an ink coating.
If ink does not adhere easily, rub on a light coating with a tissue or cotton. Allow it to dry. Apply with brush any additional coats necessary.

Transfer drawing to the inked paper and scratch out designs with a sharp pointed tool.

Lines and edges may not be as one would like, such as the crisp type made on regular scratchboard. The lines are nearer to the irregularity of a wood cut.

The ink and wax scratched away in above process are not as easy to brush aside as are the ink and plaster of regular scratchboard.

## MATERIALS:

Waxed Paper, Cardboard, Talcum Powder, India Ink, Scratch Tools of various kinds.


Color is emotional when it suggests likes and dislikes and preconceived ideas. Association through experience gives pertonal meaning to color and color relationships.

- Use color symbolism to depict pleasant and unpleasant experiences.

Suggested topics:
Green is sickly or fresh as spring.
Red shows anger or danger. Red is carnival gay.
Yellow is cowardly or bright as a summer day.
Blue is truth. Blue is sad.
Color is intellectual when it depends upon understanding and contemplation. It aids in the identification of an object or situation.

- Use color for identification and description.

Suggested topics:
An apple is ripe when red, or an apple is green. Seasonal landscapes have their own identity. Days have mood - a sunny day - a rainy day. Time of day has light and color - noon day, sunset, moonlit night.

Color has three properties - hue, value, and intensity.

- Use the three primary colors to mix all other colors.
- Use color for contrast of hue, value, and intensity.
- Use color to blend from light to dark and bright to dull.
- Apply color to abstract design to discover the properties of color by mixing and blending.

Color has temperature. Warm colors advance in space. Cool colors recede in space.

- Use color to blend from warm to cool.
- Paint realistic subject matter to observe natural effects of light and color.
- Use color and real form to depict abstract mood or idea.
- Use color in free form design to depict abstract mood or idea.


## Design Color...

Make a color wheel showing primary, secondary and intermediate colors.

Make a value chart showing nine gradations from white to middle gray to black.

Make a value chart for each primary color. Relate to gray value chart adding color to white for light values and black to color for dark values.

Make an intensity chart. Use a primary color and its secondary complement at full chroma. Mix in proportionate amounts for neutralization, from full chroma to middle gray.

Experiment with color based on color wheel relationships.

- Paint decorative designs using mechanical color schemes, such as triad, monochromatic, etc.
- Paint designs emphasizing neutralized color.

Black, white, and gray.
Color plus black.
Apply color experiments to -

- Decorative designs - color for enrichment.

Stitchery
Printing
Ceramics
Textiles

- Painting - color for description and mood.

Abstract and realistic landscapes, still life, birds, animals, flowers, figure study, etc.
Non-objective design.

- Three-dimensional construction - color for depth.

Use color to describe and enrich planes of structural design.

- Stage Design - color and light.

Use color and light to express emotion and mood, enhanding the theme of a play, operetta, or ballet.
Use color and light to enhance the setting for concerts, dances, parties, and pageants.


## Oil Painting...

OIL PAINTING, as such, was developed in 1410 by Hurbert Van Eyck of the Flemish School while he was experimenting with varnish glaze over tempera. A mixture of linseed oil, turpentine, and varnish makes the mediu;n in oil paint. The varnish serves as a drying agent. Masonite, canvasette, or canvas painted with gesso will work as a ground for oils. Canvas works best since it allows the paint to dry from both sides. In contrast to synthetic paints, many people prefer oils because they dry slowly thus giving the painter a longer time to develop his work.

The same procedure used in synthetic methods is used in oils. The differences result from the technical aspects of the media. A light turpentine wash of burnt sienna is used to block in the painting. Since oil paint takes a long time to dry completely, the sealing coat of clear varnish cannot be applied for a number of months. It is a common tendency for the beginning student to paint over wet paint. It must be allowed to dry before it is painted over to prevent intermixing of colors. Most students are also timid in mixing colors so they must do some experimenting in mixing color on the palette until the desired color is found.

A $9^{\prime \prime} \times 15^{\prime \prime}$ piece of double strength glass taped over a piece of white construction paper make a perfect palette. The white paper allows the student to see his colors accurately. Use a putty knife frequently to scrape off the dried paint. Cover the un-used paint with a piece of saran wrap between sessions.

The following basic colors can be purchased in different size tubes and give the student an adequate palette at a minimum cost: Zinc or Titanium White, Ivory Black, Yellow Ochre, Burnt Sienna, Burnt Umber, Ultramarine Blue, Alizarin Crimson, Viridian, Cadmium Yellow Light, Cadmium Red Light. Arrange these according to warm and cool colors on the palette.

Flat red sable brushes in $3 / 4^{\prime \prime}$ and $11 / 4^{\prime \prime}$ are best and will perform well in many media. When they are well cared for, they will last many years. Good brushes are an imperative. A $5^{\prime \prime}$ spring steel blade knife is used when a thick application of paint is desired or for mixing colors. Use a small fishing tackle box to store painting gear.

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## Finger Painting...

## MATERIALS AND TOOLS

- FLAT SURFACE on which to paint as a table, slab of glass, Formica, or similar material.
- FACILITIES FOR WETTING PAPER. If there is no sink in the room, sponge water on the table and lay the paper down or use a flat pan (cake pan or roaster) for immersing the paper.
- SMALLER PAN OF WATER for "sprinkling."
- SPONGE for cleaning up and for texture effects.
- NEWSPAPER spread on floor for drying surface.
- IRON to press the wrinkled paper. Press with low heat on the back. REMEMBER PAPER SCORCHES.
- FINGER PAINT PAPER. $18^{\prime \prime} \times 24^{\prime \prime}$. Use glossy side.
- SMOCK or cover up. Use dad's discarded shirt with collar and cuffs tucked under and buttoned up the back.
- FINGER PAINT, powdered or ready mixed. Use liquid starch (about 2 tbsp.) and dry tempera or homemade paint can substitute. (See recipe section).
- 10 eager FINGERS, WRISTS, HANDS, ARMS, ETC.

The most effective MOTIVATION is by individual or small group demonstration. Put name on the dull side of the paper, run it through the water, lay it flat on the table and smooth out air bubbles. This is done by lifting the corners of the paper while smoothing from the center. For the child's first experience, the teacher will have to ready the paint. Put about a heaping tbsp. in the center of the paper and spread with the hands. Use one color at first, then introduce others.

Show a few ways to use the fingers, hands, arms, and wrists while giving ideas for keeping paint on the paper, "sprinkling" when the paint begins to "pull", how to lift the finished painting by the two lower corners and place it on newspapers, and how to evaluate the design. WATCH THE CHILDREN. WHEN THEY ARE DANC. ING INSIDE, STOP THE DEMONSTRATION AND LET THEM EXPERIMENT. End the demonstration at the high point of interest. If you have not covered all you had planned, tell them individually or in a small group.

## TRY FINGER PAINTING TO MUSIC.



SELF IDENTIFICATION


MONO PRINT



## Synthetic Paints...

SYNTHETIC PAINTS are new products which have been on the market for only a few years. They are quickly becoming popular and, in fact, are beginning to replace the traditional painting medium - oil. The ingredients in synthetic paints are either acrylic or vinyl resin. (Sometimes both). They are created through a chemical process: polymerization, which changes the physical properties of the substance without changing its composition.

Synthetic paints have a luminosity and a transparency of color previously unknown to any medium. They can duplicate the qualities of oil, watercolor, tempera, and casein. They will not yellow, discolor, crack, fade, or age. They are quick drying, highly elastic, and extremely adhesive. Caution: keep brushes in water. Once dry they cannot be cleaned.

The medium used with synthetic type paint is polymer. The paints and medium are water solubie and thus are easy to handle. The paint may be used from the tube thick and opaque or it may be thinned with water and polymer to a water color consistency. A coat of clear polymer over the finished work makes a good sealer.

Almost anything can form a ground for synthetic paint. Canvas, composition board, glass, etc., are used. $1 / 8^{\prime \prime}$ standard masonite painted with a coat of while gesso is preferred by some artists. Others prefer the traditional canvas or muslin stretched over a frame and prepared with a coat of gesso. The pressed wood makes a more economical and portable ground for the high school painter.

Pencil drawing and ink wash are necessary pre-requisites for the student who is beginning to paint. He must have a background in structural design in these media before he can make the transition to more comolex painting mediums. A strong unit in drawing is recommended immediately preceding the painting unit. Ink wash is a transition between drawing and painting and involves elements of each.

The student should first develop a detailed pencil drawing and transfer it to his ground in a light pencil sketch. Then he should block in the general color areas with thin washes. This establishes basic color harmonies and light and dark areas early in the painting. The beginning student should be held to a simple palette. A monochromatic scheme works well in holding the student to tones and qualities of one color. When he understands color harmonies and mixing, his vocabulary of color may be increased.

## Mixed Miedia. . .

Experimenting to find new combinations and uses for media is a characteristic of the contemporary painter. Many very interesting effects can be achieved by mixing two or more mediums and processes.

WATER BASE PAINTS can be brushed over heavy crayon to attain an attractive resist. The effect of fully loaded or semidry brush is seen. The crayon area could be wholly covered or spotted. Try a "sprinkling" of dry tempera from a shaker top can.

INDIA INK in a line or solid form will give charm to either a wet or dry wash of water base paint. The ink could be brushed over a heavily crayoned surface, allowed to dry, and etched with a nail file, bobby pin, or a discarded ball point pen. This combination of processes and ter iniques challenges the more advanced student.

WAX CRAYONS make an effective accent for a water color. A highlight of crayon is very effective on water color paper where rough texture produces a charming pattern.

TEXTURE effects can also be achieved by the addition of sand, coffee, or other similar materials to acrylic color.

OVERLAYS of tissue paper, cardboard, decorated paper, or cloth pieces will accent some areas of the work.

EGG and HONEY added to tempera are reminiscent of pre-oil paint days. They add a permanence and beautiful sheen to the paint.

## EXPERIMENT AND DISCOVER OTHER COMBINATIONS.




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## Lettering Projects...

Develop the confidence children need. To discourage copying use their initials or names as a project to achieve this. No two will be alike upon completion.

Print or write names. , folded sheet with their crayons quite large . . . reverse fold so the crayon side is on the inside, rub to transfer the lettering, you will find a mirror-like effect results. Open, study the design created, and connect the loose ends until you feel a graceful composition. Reverse again, rub to transfer the added lines. Color the spaces created and look for people, bugs, faces, insects, etc.

An added project can be to add thickness to the letters. They can be cut out so that a spatter stencil technique can be used with paint or chalk.

The letters of the name are easily hidden if pupils try going around the letter forms repentedly until no space remains. Colors may be warm, cool or related ones. A value scheme may be used, such as red to pink with vaiations or pale green to dark green. Many new ways to use lettering can be discovered to be an advantage for the creative pupil and teacher.

In the event of an error such as is illustrated, the cut letters of Alice, on the wrong edge of the fold. Make the child feel as if he has discovered another way rather than emphasizing he has made an error.

These letters can be placed under a clean sheet and rubbed over with crayon and pencil to reproduce the cutting. They may then be studied carefully for new possibilities of making new designs from them.

If both sections of the cut names are kept they can be used as stencils for spattering around, or if the other stencil is selected, for spattering into.

Children need lettering experiences. This is one of the skills all children may use in future work. The !ettering problems should challenge student ability but not be so technical as to cause boredom.

Through lettering you give the student an opportunity to develop sequentially, to help him gain further knowledge through exploration.


Words which indicate an attitude or behavior for the pupils are good to study．Interest，behave，courtesy，effort，genuine，honesty，justice， patince，sincere，learn，truth，understand，work，etc．：．．these are some of the words that could be used to work out healthy，safety habits for posture and other activities．

Words can be converted to many forms which actually can make the shape of the word described．Examples at left．You may make a list of many more which may fit your needs．Let the children help make the list．

Children are intrigued by the challenge presented by the above idea． Words can describe a feeling or they may produce emotional responses from such as：speed，cold，hot，up，down，dignity，delicate，soft， sharp，strong，weak，solid，rough，gummy，flash，etc．

Note the illustrations at left are just a beginning．One could cate－ gorize sports equipment，tools，fruits，toys，objects inside a home， g，adgets，natural forms，catalog of shoes，wearing apparel，foods， vegetables，numerous animals，fish，insects，birds，flowers．

Children need to have as many pleasant lettering experiences as pos－ sible．Save all kinds of samples of lettering，designs，trademarks， monograms，etc．Many older children can be tested on their enlarging ability for reproduction of letter forms they study．The child becomes aware that there are many kinds，types，styles and shapes in lettering． They discover lettering can be interesting and challenging．

Don＇t forget the illusion of dimension possible．The＇ower grades can do this with double letter cutting．By shifting the letters of con－ trasting colors，create the illusion of depth．Older students are chal－ lenged to make and draw letters in dimension which become a part of their perspective lessons．

One word of caution，if lettering is not properly presented，a dismal failure can eesult．If insistent on accuracy too soon，you can lead to frustration，hate，and boredom for lettering of any type．

Lettering in most schools is a hit and miss activity．Lettering is a disciplining type of activity，applied at the right age it can produce many benefits．The very young child will not be interested in the de－ mands of extreine accuracy of lettering．The older pupil needs this as a challenge to his ability and achievement．

## Lettering Monograms...

Draw around letters, repeating the lines till no more space is left. The illustration at right shows what can happen if every up and down stroke is made slightly heavier. The spaces between the lines could be roads and when they are colored, they become bands of color in which values and contrasts could be taught.

Words or names can be used in a similar way. Start with the simple and proceed to the complex . . . varying the width of the letters from wide to narrow, short or tall gives you another means of teaching emphasis or proportion.

Light and dark designs from printing block letters, initials, or nicknames in the block style easily can be made. Draw a line through the letters. Lines may be straight, curved, angular, or wavy. Consider the line as a fence. On one side of the line, color the letter dark and the background light. Crossing the fence makes the letters light and the background becomes dark. No two designs will ever be the same.

Use letter forms and make them fit into various geometric shapes or free forms. These make an excellent monogram. The addition of the overlap principle will help one to make some interesting results. Color mixing can be taught using the above method. Harmonies, values studies are also possible with this method.

Illustration at right indicates some of the countless possibilities from combinations of letters, initials, words. Can be used on personal stationery. Alphabet books using letters cut and pasted in a general arrangement will give them a simple poster beginning. Older pupils can cut simple five letter words and paste them on a contrasting color strip. They can be used in arrangement with the illusrations.

Simple sayings are good problems. Cutting paper letters or crayoning them will fit their short interest span. Use word statements such as: Be Good, Be Kind, Exercise Often, Play Safe, Help Others, Be Fair, Get Your Rest, Eat Good Food, Brush Your Teeth, etc.

One can teach behavior and attitudes through sayings, especially if the children think them up. Interest is keen and as their attention span increases, the time spent on lettering can also increase. Speedball pen lettering exercises can be used with right and left handed pupils if the ball type point is used.




Cut paper letters art not difficult. If followed, all letters and numbers are possible with these exceptions . . . N-Z-4-7. These cannot be cut by folding. There are other styles that might be simpler for the lower grades. If space permits, this may be one style that may be included for your use.

## Numbers as Motivations...

Numbers can be the basis for motivating student interest in cartooning. The illustrations at left show the possibilities when applied to faces.

Give children an opportunity to make the unusual variations to the shape of the numeral, allow experiments.

The following suggestions are additional for numbers:

Figures can also be the theme for numerals.
Animals - fish - insects and other themes can be utilized by the imaginative student.

Color can be taught with overlapping principile being applied when two or three numbers are overlapped. Colors are designated to each of the numbers, when two overlap a new mixtore results.

Numbers may be used as a basis for designs. The numbers act as space dividers, which if filled with color values, actually disguise the number.

Dimensioning numbers will develop student's spacial ability. Intrigues the youngsters.

Numbers can be quite flexible - form shapes which can result in these variations:

Short and squatty or free formed Tall and narrow or heavy and solid Curved and graceful or irregular Circular - oval or bold - delicate

Do not overlook the possibility of space filling technique with number designs.


# Alphabet of Figures... 

The illustratiuns of figures making letters is an interesting way to motivate children to, invent their own actions.

Keep the figure simple with very little detail. Have the children try to figure out variations to the actions. Apply them to play, exercises, sports. work artivities. etc.

Children will enjoy thinking up the other possible changes they can create. Combine figures to make up words or their names as a project.

These can also be made from the stick figures to determine the actions they will take. Makes an otherwise boring subject of lettering forms become interesting to the children.

Perhaps through experimentation you can figure out some new approaches which may be shared. A sheet may be worked out using girl shapes that may show some of the actions the girls do.

Perhaps a series may be worked out using faces instead of figures for the letter shapes. There are many other possibilities that may be tried if the motivation is approached in the correct way. Children love a challenge - give them that opportunity to experience to lead them to discoveries of their very own creations.

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## Basic Figure Drawing...

A simple approach to figure drawing or painting that appeals to children usually will begin with stories. The ginger bread man is the simplest to do. Note the bear is a natural outgrowth of the first figure. The details follow normally. If children leave out these parts in their pictures such as noses, ears, mouth, a reminder using a sentence which includes the sensual need for these details will bring them out.

Have the children make a scarecrow which can be very imaginative. In fact, anything they do will be correct.

The child will now be ready for human figure drawing. Note the illustrations at right showing the development.

To make the figures large have the children bump the edges of the paper. This can be accomplished by folding the paper into four pieces and dividing as shown. Note the proportions, for the very young, one need not go into too much detail to satisfy their questions.

Note the seven cut to make a $\cos ^{+} \cdot 1$ me. A fringed cut is made after the paper is opened up. A head is added to make the figure. Hands and feet may also be added if desired.

When children ask how, try to keep your answer simple just to satisfy their inquiry. They don't need too much detail.

Winter fun activity leads to positions of figures showing action.

It is a simple matter to make a skater from the figure on the sled by placing a leg under the body in this position. The leg needs to be slightly bent. Try to place this leg about mid-point near the hip.

Additional figure suggestions for winter fun sports:

Climb up a hill
Roll a snowball
Push a snowball
Lift a snowball

Skating on ice Falling on ice Put on skates Ski down hill

Snowball fight Build a fort Build a tunnel Shoveling snow

These and many more can be done in a simple way. Study different kinds of winter clothes. Headgear, scarves, boots, and snowsuits.

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For more action we show various positions for running. Children can be challenged to figure out many others.

Much thought needs to be put into the beginning and finishing movements of the body. Bouncing a ball, leaping into the air, a dive as illustrated, gymnastics, boxing, wrestling, dancing, and the usual active sports.

Study of the main body position and add the arm and leg changes as they might take place. Flip picture books with a different figure drawn on each page, when flipped quickly will give pupil a sensation of movement. Motion pictures in a very simple style.

The pictures may appear a little jerky and the student may have to figure a way to smooth out the actions by further study.

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Figures in Action...
Have you ever wondered what happens when a person is to take one step? The illustration above shows some of the movement necessary to accomplish this. Notice how the light leg moves back and the dark one moves forward. While this is taking place, note the arm action. Opposite arm and leg move in unison.

This is the principle used in cartooning for movies. One needs to think through all the basic moves that are necessary for any movement of the person's body.

The illustration below shows some of the action that is involved in making a jump with both feet. In this action both arms and legs are moving together. Other actions will vary depending on what you wish to have the person do. Try to have the children walk or move in slow motion, concentrate on the leg movement first. Repeat identical movement, concentrate on arm action.

The most difficult to demonstrate would be rapid action. It would be hard to run slowly. Body exercises and sports activities give us many actions to watch. Bounce a ball, swing a bat, throw and kick a ball, a dive, swimming, sliding, climbing, hopping, bowling, golfing, and many others. Work chores around the home are another source of action movements. Games children play give us additional ones. Try collections of sports, games, play, work figures, these will assist pupils in understanding body movements and aid them in drawing these figures for any illustrations.


## Figures . . .

The human figure is one of the most challenging subjects in the whole field of art. Generally speaking, there are basic shapes which seem to apply to people.
a. Shows a male figure which is usually taller than a female. Note the broad shoulders and narrow hips and heavier arms and legs.
b. Shows a female figure with a typical hourglass shape - full chest and hips connected by a small waist. Shoulders are narrow and hips are full with slender. graceful arms and legs.
c. The young child is only about four heads high. Neck and chest are small with stomach well developed. Children can be drawn with many curves to show physical fluid quality.
d. Geometric shapes apply to humans.

1. A small child is a circle and a triangle.
2. A woman is a circle with double inverted triangles.
3. A man is a long inverted isosceles triangle.
4. A fat man is represented by two circles.
5. A woman can be three circles.

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## Figures Contimued ...

Although there are basic proportions to learn concerning average measurements, keep in mind that all people are different. There are short people and tall ones, fat and skinny ones, muscular and flabby ones, young and old, stooned and straight, etcetera.

The unit of measure for a figure is the head, used as the inch is used in a ruler. The average adult form is about seven heads high.
a. Note that the hips are half-way. There are $31 / 2$ heads above and $31 / 2$ heads below the hip line. Also notice the elbows are opposite the waist. Use this chart to help gain an understanding of the human body.
b. The same general proportions prevail for wemen as for men. Keep in mind the basic geometric shapes and vary the width accordingly.
c. Whenever a change of position takes place, the body still has its same height of seven heads. Practice various poses and draw from life whenever possible.
d. The running oval is a good exercise in developing freedom of movement without the stiffness of stick figures.

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## Fashion Illustration...

The first important step to fashion drawing is sketching the human figure. Pages and pages of sketches should be made. It is best to do this directly from a model. However, if necessary. sketching may be made up from simple stick figures like the illustrations on this page.

Literally, hundreds of figure studies should be done until easy graceful poses become natural. Try the 3D box figures as a beginning toward form in the figure. Then practice draping with various kinds of clothing. Notice how a sleeve wrinkles, how a collar goes around the neck, etc.

Make a study of costume design from various ages of history as a preliminary to the "fun" part of designing the latest styles. No one can cre .te out of a vacuum and all current styles have their historical counterparts. Even the daring "topless" craze is old, dating from ancient Egypt and Crete. Did you know the Romans were first to wear a bikini at Pompeii?

By exposing the students to good costumes through the ages, many more ideas will be adaptable to our own styles. A good course in fashion design can be a study of the social sciences as well.

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## Fashion Continued...

For students anxious to progress fast. tracing paper should be placed over magazine and newspaper fashion photographs and countless tracings should be made to get the feeling of fashion drawing. Tracings of difficult to draw areas of the body such as feet and hands should be made until some familiarity is established. Facial features should be studied thoroughly.

Tracing paper should be discarded as soon as possible since this is merely a "crutch" for getting started. Students who progress past this point will try for structure, a good proportion and the necessary charm and grace which characterize good fashion illustration.

Make careful studies of textiles and the way materials drape. Only after much work does fashion illi.s.ration become easy to do.

Make a thorough study of the techniques of top fashion illustrators. A notebook can hold a collection of pictures which should be done in such a definite style that the work of an artist is recognizable even without a signature. This is the purpose after all - to develop an individual technique of doing fashion illustration and an individual way of designing clothes.

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## Portraits....

a. Begin with an oval shape. Horizontally divide the oval in half. This is the location of the eyes. It is important to get the eyes accurately placed for good proportion. The chart is self-explanatory. Follow it for good results, keeping in mind that these are average measurements and that people vary.
b. A profile head has the same general measurements as a front view. Practice the sideview using Chart B for a guide. Students enjoy drawing themselves, their teacher. their classmates, and their family after they have mastered the basic proportions of the head.
c. A head is a three-dimensional object. In art a surface is called a "plane." Notice that a head is like a flight of stairs - planes advance and recede. The advancing planes catch highlights while the receding planes are in shadow.
d. An eye does show the whole round pupil, but never shows the complete circle of the iris except in cases of extreme surprise, fright, or shock. Use the eyelid to soften the stare that children's art work often has. From the side, an eye is only half visible. Practice drawing eyes in different positions: looking up, down, and sideways, open and shut.
e. A mouth is generally shaped as in sketch f., but again all people are different and mouths vary greatly. Usually the lower lip is fuller and catches the light. The top lip is actually a receding plane. (See sketch c.) Practice sideviews, and try all positions.

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## Portraits Continued...

a. Babies and small children do not have the same eye measurements as adults. Instead of $1 / 2$ way, the baby's eyes are $2 / 3$ of the way down the head. Notice how this makes the face look young. Features are small and dainty.
b. Older people have loose skin with wrinkles. Their eyes have drooped lids, bushier brows, sparser hair, saggy chins, and thinner mouths than middle-aged adults.
c. Expression on a face is a matter of changing line direction in the facial features. Notice how in this sketch a disagreeable.look results from frowning eyebrows and forehead wrinkles coupled with a tightened mouth turned down at the corners.
d. An expression of joy is the opposite of sketch c. Note the raised eyebrows, twinkling eyes, upturned mouth. Let students experiment with various expressions such as sorrow, fright, anger, surprise.
e. A distortion of the face results in caricature studies which is another portrait lesson bordering on the cartoon style. Clowns are wonderful subject matters and students can be very creative.
f. How the neck indicates differences:

1. A long straight neck gives good posture.
2. A bent-over shoulder shows age.
3. A baby has very little neck development.
4. A thick neck shows muscular structure.
5. A feminine grace results from a curved neck.

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## CIRCLE AND EGG SHAPES FOR BIRDS

1. Use a circle for the head and an oval for the body.
2. An oval can be used to include both the head and body.
3. Try drawing realistic birds.
4. Add eyes, beaks, wings, legs, tails and feet.

## STICK AND CIRCLE BIRDS

1. Use a circle for the head.
2. A half circle or curved line for the body.
3. Add stick legs and use triangles for the feet.
4. Add eyes, beak, wings and detail.
5. Try for different positions: some stretching, some bending, some sitting, some standing.
6. See how many birds children can group and over!ap.

## BASIC SHAPES FOR BIRDS

1. Cut out basic shapes from colorful construction paper.
2. Arrange the basic shapes on colorful background to make interesting birds.
3. With dark crayons add eyes, beaks, wings, stick legs and detail feathers.

## Birds Continued...

## SCRIBBLE BIRDS

1. Draw a simple scribble.
2. Add legs, beak, feathers, eyes, etc.
3. Color with crayons to make an abstract bird and accent with black crayon.

## HEART SHAPED BIRDS

1. Eagles and hawks can easily be formed by using a heart shape.
2. Try turning the heart shape at an angle for different positions.
3. Split the heart in half to make wings spread. Feel free to deviate from this shape to encourage -aturalness.
4. Birds of prey are good antidotes for song birds. Children love variety. Let them try several birds in one picture. Strive for distance by making some large, some medium, and some small.

## DOTS FOR FLYING BIRDS

1. Place three dots at random on the paper.
2. Place a triangle around one dot for the head.
3. Add neck and then wings to the dots closest to the head, bend joints.
4. Add body and tail (legs do not show).


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## Flowers Continued...

There are many wild flowers children can draw directly from nature. Notice the variety of shapes in the petals, leaves, and stems. Encourage children to see detail of each individual blossom. If possible, have some examples in the classroom.

Let the students try grouping auwers in bouquets. Try for simplicity: do not crowd in bunches.

| a. | Trillium | h. | Shooting Star |
| :--- | :--- | :--- | :--- |
| b. | Wild Iris | i. | Clematis |
| c. | Mariposa | j. | Wild Rose |
| d. | Small Tiger Lily | k. | Lupine |
| e. | Wild Onion | I. | Sweet Pea |
| f. | Clover | m. | Blue Bell |
| g. | Morning Glory | n. | Snow Bush |

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## Animals Continued...

There are many wild animals that excite children's imaginations. Try to determine the basic shape of animal and begin with circles as guides. Draw them lightly so they can be erased when the animal is completed. Use colors, paints, pen and ink or various media to create pictures. Try to make the background fit the animals by placing them in zoos, circuses, or natural habitat.
a. Kangaroo
b. Koala
c. Panda Bear
d. Polar Bear
e. Camel
f. Fox
g. Wild Goat
h. Monkey
i. Panther
j. Lions

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## Three Dimensional Drawing...

Children enjoy making three dimensional objects. This illustration borrows from the Industrial Arts methods of cabinet drawing which makes use of parallel lines.
We can teach pupils to improve visual ability through this method. This should be taught when the children ask for assistance on how to show depth. One need not be too technical about perspective drawing as one can see they are not truly perspective in appearance.
You will note three sets of parallel lines are used. We refer to these lines as tracks; children understand this. Each box makes use of a vertical, a horizontal, and an uphill and downhill set of lines.


Practice making these lines, when one feels proficient one can add dimension to objects, toys, letters, and cars, trucks, furniture. The: enjoy this achievement.

Let us analyze the illustrations starting at the top.
Fig. 1. We see front, right side, and bottom removed.
Fig. 2. We see front, right side removed, and bottom.
Fig. 3. We see iront removed, right side, and bottom.
The center illustration shows plain, solid, square box.
Fig. 4. We see front, left side, and the top removed.
Fig. 5. We see front, left side removed, and the top.
Fig. 6. We see front removed, left side, and the top.
Make a large exams. le of this sheet for your children. When this sheet is rotated, you see the same box combinations in different positions. Fascinates children.

Perspective drawing is easier to understand if child has an opportunity to use the track method first. We repeat, when tie children ask how to show depth, using the cabinet drawing method has really helped them to understand. You will be amazed at their interest and accomplishments.

## Dimensioning Line...

Any simple or complex line can be given dimension if a system of parallel lines is used. Using the clock as a guide, the dimensional line is drawn at the position of the clock number. Illustration at the right shows the angle of the dimension drawn at 10 o'clock and the drawing below using a 2 o'clock position. If one desires, they can use every position of the clock. Best use of the 12 and 6 o'clock position if line is at an angle. A different view of the line results if drawn in all positions. You can fascinate the children with a chart made using a line drawn dimensional. Try some yourself before showing these to youngsters.


Try a scribble line and give it dimensional quality.
Add thickness to a line, add the dimensional quality.
Notice how a wavy line can become drapery by adding a vertical dimension line to the drawing.
Spiral forms are additional incentive for the child who has a clear understanding. Quite challenging.
Many other lines or combinations of them can be the inspiration for further dimensional study. Letters. for example, can be given dimension by this method.
The illustration at the bottom of the page shows the principle of perspective which is the next logical step. Procedure develops spatial ability in student.

Parallel line principle is extremely important.

## Line Generations...

Generation of line with the aid of a ruler is an excellent process which develops the pupil's accuracy and attention to detnils.

Any shape or form may be used, space divisions may be equal or vary. The three dimensional is a result one can expect from pupil exploration. The circle uses the chord of four spaces, also one of eight spaces skipped. The circle is divided into 20 segments. You will note a 4 chord skip makes a smaller design as one goes around the circle and the 8 chord skip makes a design easier to work with.

Any shape or series of lines can be developed. Pupils like to use colored pencils or pens for this fascinating technique.

Resulting trom pupil exploration, a possible use which niay give you additional incentive to use this method is the filling in of spaces created with color schemes. Very colorful creations.

A fine type of activity for seat work. Student needs very little direction once the processes have been mastered. Three dimensional experiments can be accomplished with thread on cards or string and thread combinations on cardboard or wooden frames. These can become quite complicated for the upper leve' students and give them quite a challenge. Encourage experiments. These can also become the basis for tooth-pick sculpturing, which also seems to fascinate them. Perhaps you shall discover new solutions.

## Object Drawing...

Round objects can be successfully tried by children. Note the O is ovoid in shape and the C is really one half of the O . This approach seems to satisfy pupils when there is an urge to draw realistically without complicated explanations about perspective drawing.

Gradually, technical explanations clarify the whys to students. Make a list of appliances manufactured. The various catalogs available to students will supply a large majority of the items.

| Powder boxes | Bottles | Plates | Mixers | Tires |
| :--- | :--- | :--- | :--- | :--- |
| Waffe irons | Pitcher | Motors | Clocks | Lamps |
| Mixing bowls | Tea pot | Dishes | Wagons | Vases |
| Round cakes | Mirrors | Trucks | Cycles | Pipes |
| Microscopes | Cameras | Trains | Phones | Rings |
| Candy boxes | Shakers | Spools | Basket | Tubes |
| Power tools | Saucers | Cakes | Trays | Watch |



TRANSPORTATION


## Display Methods...

A zig-zag fold of cardboard taped to stand alone is easy to do and easy to transport. Both sides may be used and placed on a table by forming right angles. One of the simplest methods of display you can use.

Select similar sized boxes so that various combinations will enable you to make exhibit space for the three dimensional things. Taping the boxes together and cutting them a uniform depth, they will hold the items most schools will desire to exhibit.

A similar idea but using the wrap around principle. This requires that all boxes be exactly alike. They are taped together, trimmed, and decorated to suit.

Wall paper may be used to line the boxes. Pasting can be a little difficult. Place dioramas into them with painted or drawn backgrounds to fit.

Matting pictures seems to present some problems but the following are very simple procedures you could use to frame students' work. Give the pupil a chance to make these for himself. He needs to succeed.

A pair of diagonal lines and folded as illustrated to any depth desired is a simple dimensional frame. The picture is pasted into the tabs of the box form.

Cut an opening in a frame card and hinge it with another plain card and you have a simple, easy display unit to change pictures as needed. Make several to fit the sizes of paper you usually use.

Have children place their picture on top of another sheet slightly larger than their picture. Centet it visually and fold over extended edges around their picture. Pinch the corners to create a three dimensional quality. This is the quickest way for children to do their $0 \%, n$ framing of their work.

The bottom illustration shows another method. Form the box shape first and place over matted pictures. One must keep in mind that children must have opportunity to frame their own work and also be given a chance to evaluate their accomplishments.

Many more examples are possible. Have pupils experiment with ways of display and if you try them yourself, progress in displaying will be achieved.



Discuss the selection of a theme. Work with familiar shapes and forms such as: fish, food, toys, tools. birds, figures, faces, masks, nails, sticks, paper clips, leaves, flowers, insects. bugs. sports equipment, animals. arrows, stars. ball. ring, watch. pipe, house, etc.

Stress big, middle size. and small - use the three bear story to emphasize this basic idea. Cut three sizes of a shape.

1. Shows large arrow or house placed at random on a sheet.
2. Shows middle size superimposed on the large shape.
3. Shows the tiny size overlapping to fill remaining space.

As youngsters mature they will not need cut cut shapes. Some of the children are disturbed by the overlaps and will avoid them. Tell them it is to help tie the pieces together.

- When pieces have been placed the child may fill only the remaining background. Crayon, paint, or paper may be used.
- A dark piece of paper may be chosen with chalk and color darker than the paper. Use to create interesting effects.
- If chalk is used with crayon use the chalk first. Crayon works on top of chalk but not the other way around.
- Pen or crayon lines can continue around the formed shapes till no empty space remains. Have them pretend they are driving their colors around the shapes and they must not bump the existing shapes.
- Older pupils may select color schemes. A different color for each shape; where an overlap occurs they paint in the resulting mixture. Good for teaching color.

Children like bright colors and many times the colors remaining on shelves are shunned. Have them select a dull or drab color and use chalk with a color crayon darker than the paper selected. This will help get rid of unwanted colors.

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Select a sheet of old, dark, dull, drab color which a child seldom uses and apply chalk and crayons. Use the continuous line method for excellent results.

Many of the colors to be selected fall into a neutral category. They do not appeal to children and it is an excellent way to use up the colors rejected by them.

A piece of chalkboard chalk can be used. Take an imaginary trip with a line or call it a follow the leader line. Test the crayons on the back of the sheet, which helps the pupil select the ones which adin: the best. Spaces created can then be filled. Color selection is $c: \ldots$ eir limited or unrestricted. Emphasize lights-dark.

Dark colors tend to appear heavier, place these in the smaller spaces. Balance these with large areas of the light colors. Experimentation will aid the pupils to make decisions regarding the amount of color needed and the degree of variations possible.

A simple way to make wrapping paper, wallpaper, drapery, cloth, counter tops, floor coverings, linoleum, and other commercial applications of design.

The old poster and the dull faded construction papers disappear from our shelves as if by magic. We strive to get the children to see that color is important to them and that any color of paper could be enhanced with the use of colored chalk and colored crayons.

The children began to see that beautiful designs were made from what normally was rejected. Pupils were the analysts and became more appreciative of their basic designs. The examples at right show the many possible variations that children $c \cdot n$ apply to their countless design explorations. They were happy with the results.

We called our completed designs "Personality Paper." The children agreed they were more cheerful, happier looking and made the dull colors selected come to life.

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## Landscape Continued...

a. Pine trees are basically triangular in shape with a straight trunk. Branches have an upward sweep. Note that part of the tree trunk near the ground is mostly bare. A man can walk under the main branches upright.
b. Spruce trees are also triangular, but their branches come right down to the ground. Notice the difference in the smaller needles and cones. Branches sweep downward.
c. Deciduous trees have large sturdy trunks that divide into several main branches. Tips of branches become finer toward the ends. Trees are very tall. Let them go right off the paper and do not squeeze them into small spaces if you are trying for a natural effect.
d. When putting leaves on a tree, try to visualize the clumps of branches shading. them underneath and highlighting them on top. Students should not attempt to show every leaf, just suggest them here and there.

1. Try drawing trees by starting the student actually "planting" the seed. Water it!
2. Let the sun help it grow.
3. Sprout the seed and bring strokes upward in a natural growth pattern. Do not stick branches into a tree. Keep strokes curvy for a graceful effect.

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a.


## Perspective Continued...

## TWO POINT PERSPECTIVE

Building box at an angle directly at eye level. Note the dotted lines converge to point at left.

The box above eye level showing the bottom.
The same box below eye level slowing the top.

To get away from an extreme distortion note one of the vanishing points is off the drawing area. Extreme distortion usually occurs when both points are on the drawing area.

## ONE POINT PERSPECTIVE

Illustration at top right shows the inside of a box with observer at right angle to the view.

Stairs shown (bottom right) with converging lines all going to one vanishing point. Note the horizontal and vertical lines are parallel to the picture plane.

A downtown street with all converging lines going to one vanishing point. If the observer were on a hill his eye level would be higher and it would be possible to see the roof tops. of some of the buildings.

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