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**ABSTRACT**

The development of students in various art fields is the focus of this K-12 art curriculum guide. The philosophy of the art program and the roles of administrator, teacher, and parent are outlined. The underlying school community relationships, and the objective, goals, and purposes of art education are described. Phases of child development in general and for specific age groups from 4 to 18 years of age are given with the art characteristics of these age groups and their art program goals. Fundamental art concepts -- color, light and shade, design, and composition -- as well as the basic media, are outlined as to objectives, materials, and suggested projects. The remainder of the guide follows a format of objectives, materials, working knowledge, concepts, and suggested projects in presenting several art techniques. Methods, motivations, and processes are not dictated but are left to the individual teachers. Techniques in the guide include the following: lettering, interior and mural design, paper and paper mache, batik, tie-dying, printing, silversmithing, enameling, stained glass, wood, leather, textiles, ceramics, and sand casting. (Author/KSM)

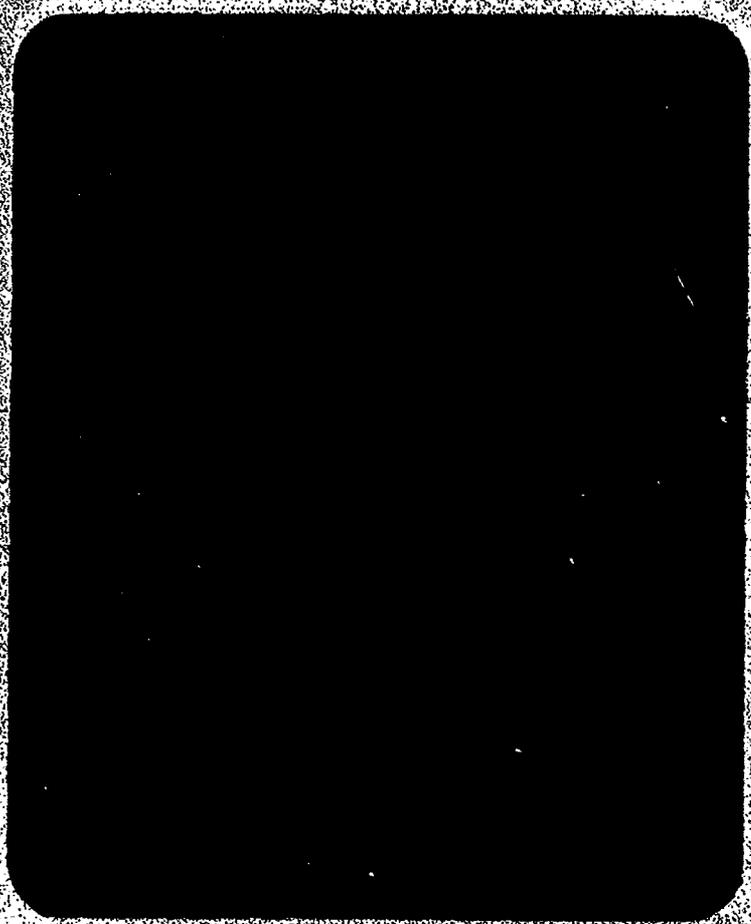
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# k-12 Art Guide



**Kansas State Department of Education**

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130 East 10th Street Topeka, Kansas 66612

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# **K-12 ART GUIDE**

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## **Foreword**

This guide is not a program of work for individual teachers or students but rather a guide to the development of a youth in the various art fields—a development that will help him to adjust to adult life. Methods, motivations, and processes are not dictated but are left to the individual teachers.

The art instructor as the leader must have a broad cultural education and a thorough training in the arts, for without a strong teacher no art curriculum can be a success. The teacher must possess imagination and originality, for resourcefulness is developed in the student by the teacher. It is the purpose of the teacher to develop the youth rather than to provide stock answers.

The philosophy that underlines the art program is based on the firm belief that art education today is an integral part of our democratic way of life. Art no longer exists solely within the cloistered hall of the museums. It has become far broader. It is an educational experience that no student should be denied for it is not for one person to predict what vistas lie ahead. It is safe to say for the present that art has become a recognized factor in everyday living. Therefore, the understanding of art and its function is a necessary part of a well rounded education. If youth is handicapped by a lack of understanding and appreciation of the arts, vast avenues of experience are closed to him.

All young people can never become artists, but since art is a visual statement of life, it is a language which a student can appreciate even if he cannot understand it. The art courses in Kansas schools should be an integrating force in training our students to make the necessary adjustments essential to their healthy assimilation into adult society of a democratic people.

We feel that a student who is educated without art is not truly educated at all.

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**Table of Contents**

	PAGE		PAGE
Philosophy .....	3	Interior Design .....	28
Art Program .....	3	Design .....	29
Role of Administrator .....	3	Mural Design .....	30
Role of the Teacher .....	4	Collage .....	31
Role of the Parent .....	4	Fold and Dye .....	32
School Community Relationships .....	4	Decorated Papers .....	32
Art as Creative Education .....	5	Paper .....	32
General and Educational Objectives .....	5	Two-Dimensional Art .....	33
Goals for Art Education .....	5	Stenciling .....	34
Purposes of Art Education .....	6	Tempera Batik .....	34
Phases of Child Growth .....	6	Batik .....	35
Kindergarten Art Characteristics .....	7	Tie-Dying .....	35
Art Characteristics Age 4-7 .....	7	Wax and Resist Processes .....	35
Art Characteristics Age 8-9 .....	7	Wax Resist .....	36
Art Characteristics Age 10-11 .....	8	Block Printing .....	36
Junior High Art .....	8	Printmaking .....	37
Goals for Junior High Art Program .....	9	Relief Printing .....	37
Growth and Development Age 12-14 .....	9	Printmaking .....	38
Senior High Art .....	10	Experimental Printing .....	38
Goals for the Senior High Art Program .....	10	Monoprint .....	38
Growth and Development Age 15-18 .....	10	Etching or Intaglio .....	39
Suggestions for the use of this Guide .....	11	Intaglio Printing .....	39
A Theory of Color .....	11	Lithography .....	39
Color .....	12	Graphic Arts .....	39
Light and Shade .....	14	Silk Screen Printing .....	40
Figure Drawing and Portraiture .....	15	Mobiles .....	41
Suggested Problems—Color .....	16	Paper Sculpture .....	41
Design .....	17	Papier Maché .....	42
Composition .....	18	Three-Dimensional Papier Maché .....	42
Approaches to Painting .....	20	Three-Dimensional Art .....	42
Drawing .....	21	Mask Making .....	43
Water Color Painting .....	22	Crafts .....	43
Painting .....	23	Silversmithing .....	44
Freehand Drawing .....	24	Enameling .....	48
Oil Painting .....	24	Glass .....	50
Art Understanding .....	25	Plaster .....	51
Evaluation .....	26	Stained Glass .....	51
Art History .....	26	Etching on Glass .....	52
Lettering .....	27	Mosaics .....	52
Lettering and Layout Design .....	28		

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	<b>PAGE</b>		<b>PAGE</b>
Wood .....	53	Glazing and Decorative Effects .....	61
Leather .....	54	Stacking and Firing Kiln .....	61
The Textile Arts .....	54	Clay .....	61
Stitchery and Fabrics .....	55	The Potter's Wheel .....	63
Textile Decorating .....	55	Mold Making and Casting .....	63
Batik .....	56	Firing Ceramic Ware .....	64
Tie-Dyeing .....	56	Draping Methods of Sculpture .....	65
Applique .....	57	Sculpture .....	65
Netting and Macrame Knotting .....	57	Portrait in Clay .....	66
Rug Hooking .....	58	Mobile, Stables-Wire .....	66
Weaving .....	58	Sculptures .....	67
Ceramics .....	59	Plaster Sculpture .....	68
Design .....	59	Sand Casting .....	69
Hand Built Pottery .....	60	Casting .....	70
Wheel-Thrown Pottery .....	61	Glossary of Art Terms .....	71
Modeling .....	61	Recommended Teaching Aids .....	74

## **Introduction**

We emphasize the provision of creative art experiences for every student. This is based on our belief in the unique quality of each individual, his need for self-fulfillment and the importance of his contribution to the lives of others.

Certain expressive qualities of music, the dance and the language arts are shared by the visual arts. However, creating in the visual arts is unique since it is the only way in which a student can give tangible form to his experiences through the manipulation of various media. Moreover, expression in the visual arts is not hampered by limitations of language nor by the lack of specialized skills associated with music, the dance or creative writing. Another very important aspect of the visual arts is that the hands which create an object can feed it, hold it, and experience it again and again as a source of satisfaction and beauty. In a world of mechanical wonder the hand-made object becomes a prized possession.

Although the opportunity to give form to experience is important for the average student, it is particularly important for the non-verbal student and for those who are verbally gifted. For the former, who cannot adequately express knowledge or feelings with words, it offers a way to break through and to communicate. For the verbally gifted student, who may tend to talk about his experiences rather than become physically involved in them, creating in the visual arts offers other methods of self-expression.

In the visual arts a student is confronted with the need for self-direction as he searches among many possibilities for the best way to express his own ideas. A very young student usually makes spontaneous and direct art statements about what he knows and feels. As he matures, his work becomes more complex. Through art, his active curiosity and sense of newness, adventure, and play can be encouraged. Opportunities arise to develop his ability to experiment, to observe, to plan, to select those means and materials which best express a particular idea. Through art, students can become aware that they have many special things to say and can develop confidence in their ability to say them.

As a growing student seeks to cope with the world about him, to explore it, and to find his place in it, the visual arts provide a means of forming concepts

and organizing them in a way that has meaning for him. These concepts, and this organization of them, changes as he matures. His mind explores possibilities, rejects some, accepts others, and finds new solutions as his work progresses.

He feels an urge to establish order and begins to organize many random concepts toward the expression of an idea. Growth in a student is evidenced by the ability to organize his new responses to situations, to express these in forms that satisfy him, and to convey his ideas to others as he paints, models, and constructs. At every stage of growth through art, a student affords us an insight into his world of experiences.

Art experiences, particularly at the early age levels, afford a freedom of expression not commonly associated with other areas of learning. Art, for example, cannot be evaluated in the way that arithmetic, spelling, or science are evaluated. A student's creation can be judged only in terms of his own intent and his own ability to achieve that intent. In approaching the judgment of students' work in this light, we can foster in them the confidence and freedom which, in turn will further their growth through art experience.

Pleasure and enjoyment are important ingredients in the art experience. For the student, as for the mature artist, the process of creating allows him to be completely himself, closest to his own desires and relatively untouched by the conflicting and sometimes arbitrary demands of the outside world. In working out his feelings in his own way, he experiences the pleasures of self-realization known to artists in all fields of endeavor.

Art contributes directly to various areas of school work. It is a broad field which cuts across all subject matter and which can be used to motivate children in other work. It can enrich a learning situation and make it more vivid and memorable. Art can also be used to unite ideas and show relationships which might otherwise remain remote and theoretical to the student. However, in these related roles, art must not be made to lose its creative character.

The art program must provide truly creative experiences and the student must be seen in many situations to realize the full and unique contribution of the visual arts to the educative process.

An art program should fill the general educational needs of all students and integrate more specific subjects into the harmony with each other and with art itself. Creative expression is vital to the development of each individual student and should provide opportunity for self-improvement and a growing interest in the student's surroundings. This can be done only by thinking through exploration and experimentation. This sensitivity to all living experiences can help the

student develop good taste in selecting not only works of art but also consumer products. The student should benefit from art in his effective use of leisure time and should be encouraged to develop his talents to the utmost. While skills and technique are necessary to real satisfaction, the experiences must be kept within the student's ability. Art Education will offer therapeutic benefits to many and most important, will lead the way to self-expression and freedom in thought.

## The Art Program

**BUILDS**—the concept that art is seeing, touching, experimenting, exploring, choosing, expressing, appreciating, and enriching.

**GUIDES**—and encourages the child to fulfill his desire for self-expression by developing his creative abilities.

**DEVELOPS**—the child's ability to select, to arrange, or to make objects more attractive for use, and stimulates him to improve that which is unattractive in his environment.

**STRENGTHENS**—group relationships through sharing ideas in individual and group projects.

**HELPS**—the child to understand that good design enhances the economic as well as the aesthetic value of any object.

**PROMOTES**—desirable workshop attitudes and gives training in the selection, preparation, and care of tools, materials, and facilities.

**PROVIDES**—ample opportunity for all children to experience working with many materials including those which are native to their community.

**AIDS**—the child in developing interests and skills which lead to the enrichment of leisure time activities.

## The Role of the Administrator

Teachers, because of their responsible positions, are constantly looking to their administrators for leadership in

### *Curriculum Development to:*

- give impetus to a program of curriculum revision and development that meets the needs of the constant growth in art activities necessary to keep pace with the total learning process and the normal growth in children.

### *Improvement of the Teaching Process to:*

- act as a resource person.
- plan meetings for teachers and supervisors.
- provide in-service improvement opportunities.
- consistently help each teacher develop a feeling of professional dignity and importance.
- aid supervisors and teachers in evaluating the art program.
- encourage the idea that the arts are a necessary part of the curriculum.
- become acquainted with the whole art program.
- help teachers and supervisors plan and implement an effective schedule.
- provide adequate art supplies, space and equip-

ment for a well organized art program with a wide range of activities.

- visit the art classes often.
- provide funds for books and magazines for the professional library used by the faculty.
- read the material in order to prepare himself for leadership in encouraging and aiding his faculty in their efforts to provide the creative experiences in art.
- encourage the continuing study and evaluation, by his faculty, of the opportunities they are providing their students in the arts.
- exhibit an interest in the work of his art teachers, compliment their efforts when due, and share their problems in a cooperative way.
- encourage the use and purchase of prints, reproductions, films, and slides of art works.
- make every effort to send art supervisors and teachers, with financial aid from the school, to conventions and workshops.
- if possible, attend such meetings and workshops himself.
- encourage his teachers to join and be active in professional art education organizations. (KAEA, NAEA)

## The Role of the Teacher

The role of the teacher in the art program is to

- make the child aware that seeking is learning, that a large part of growth in art depends upon the ability of the individual child to enjoy looking at his environment from various points of view.
- win the child's confidence and respect.
- create an atmosphere in which the child can be happy as he grows and works.
- make many tools and materials available so that there is an opportunity for choice when expressing ideas.
- make effective use of instructional aids.
- help the child develop confidence in himself.
- encourage individuality in expression.
- help the child to recall and clarify experiences in order to assist him in organizing his ideas.
- introduce, within the child's understanding, the art elements and principles of organization to help him become aware of art terminology.

- show the ways of handling tools and materials most effectively.
- help the child evaluate and appreciate his own efforts.
- develop an appreciation for the universality of art.
- foster within the child a "love for doing."
- make use of numerous opportunities to integrate and use art as a part of school and community activities.
- a look at the supervisor for help and guidance, but direct the art activities of the pupils in the classroom.
- see that materials are properly distributed before the art lesson, and the classroom is left clean and orderly after the art period.
- keep a portfolio of samplings of each child's work to evaluate programs.
- express personal enthusiasm and maintain professional alertness.

## The Role of the Parent

The art teacher should inform parents of the role of art in the school curriculum. Parents can more successfully contribute to the total education of their children when they understand the importance of art in everyday living.

Parents can help their child grow through art experiences when they:

- recognize that art is a vital part of every young child's play and learning experience.
- study child development in art and gain some understanding of what children do with art.
- respect child art, however crude it may seem, as a natural means of communication.
- encourage the child to express himself at his level of ability and not with reference to adult standards.
- realize that experiences with art materials are essential for creative learning to all boys and girls.
- take the responsibility for arranging time and for providing the child with needed tools, materials, and

space for work in the home; do not give him coloring books.

- arrange for family art exhibits in a gallery spot at home through which appreciative attitudes and values may be gained.
- ask the child to tell you about his art work; do not criticize unfavorably; try to understand the child's art.
- participate in art activities with the child and enjoy it with him; allow the child to express his own ideas; art is individual.
- help establish good craftsmanship.
- note the sincerity and freedom with which a child expresses himself when he is working in an atmosphere of understanding.
- see and help your child to see the interesting and unusual things in nature.
- help the child to develop an awareness of the design quality in things used every day.

## School-Community Relationships

As a teacher one of the important duties is to interpret the children's school art program to the parents. Opportunities for this are provided through open house displays and discussions with parents, through P. T. A. meetings, through the use of art education films, through conferences and meetings, and through individual folders of children's work which show progress. Parents should be very much interested in guiding children to observe, think, experiment, and work creatively with art media at home rather than provid-

ing them with coloring books, patterns, paint-by-number sets, and how-to-do-it kits.

### *Children's Art Should Be Seen:*

- in the classrooms, halls, principal's office, teachers' lounge, and lunchroom.
- in public buildings, museums, libraries, community centers.
- in store windows.
- at outdoor exhibits.
- in homes.

***The Community Engages in Art Activities Through:***

- adult art education workshops, lectures, films, demonstrations.
- TV art programs.
- classes where children and parents work together.
- art publications.
- community art groups.

***The Community Provides Resources Through:***

- summer and after-school programs.
- persons with special art abilities.
- museums, schools, parks.
- colleges and universities.

**Art As Creative Education**

Art is a way of enriching life. With understanding guidance, it can be an important educational tool in developing the whole personality. Therefore, the art program should reach all students, not just the talented few. It must be a vital part of the curriculum in every school.

Art education can discover, challenge, and develop talented students and provide for leisure time activi-

ties. Art is a way of doing and can be correlated with all the other areas of learning such as social studies, literature, science, mathematics, shop, home-making, music, agriculture, dramatics, physical education, health, foreign languages, and social activities. Art can enhance the beauty of classrooms, buildings, and homes.

**General and Educational Objectives**

The outstanding function of a program of art education for all young people must be to assist them to arrive at a well-balanced creative, intellectual, physical, moral, spiritual, emotional, and social maturity.

In order to achieve this end, the art program should function as follows:

- *Provide* opportunities for building spiritual values by fostering artistic development.
- *Encourage* creativity by providing opportunities to express and create.
- *Develop* greater powers of detailed observation and visual judgment.
- *Help* pupils to develop self-awareness, self-direction, self-confidence, and a sense of responsibility.
- *Help* all pupils to achieve their highest potential.
- *Develop* and enrich the personality of students through a variety of creative experiences.
- *Encourage* pupils to visualize ideas, thoughts, and feelings in original expressions.
- *Help* pupils increase the use of imagination and resourceful thinking in solving art problems.
- *Provide* for pupil growth by encouraging experimentation, creativity, and evaluation of his progress.

- *Offer* activities which develop understanding of the characteristics of many materials by exploration.
- *Develop* learning and techniques necessary for creative growth and personal expression.
- *Develop* pride in craftsmanship.
- *Encourage* good work habits and respect for materials and tools.
- *Develop* self-confidence and satisfaction in accomplishment and in the production of original ideas.
- *Develop* individual initiative as well as group responsibility.
- *Provide* opportunities for more specialized instruction in the field of art as the student matures.
- *Provide* advanced art education for those with unusual ability.
- *Deepen* understanding of the vocational and avocational value of art.
- *Increase* critical judgment for selections of the fine art and industrial art products to be used in daily living.
- *Develop* responsibility to self, home, school, and community.
- *Develop* appreciation for the heritage of fine art and all eras of history.

**Goals for Art Education**

- *To develop* a sensitivity to and an appreciation of art, man's highest form of expression and communication.
- *To promote* maximum self-realization of the student through a variety of creative experiences.

- *To promote* growth in knowledge, insights, concepts, and outlooks through the encouragement of original thinking, creative expression, good work habits and the understanding of materials, media, and techniques.

- *To encourage* a respect for the work of others.
- *To develop* character through cooperation and responsibility in group activities.
- *To seek out* the talented and provide counseling

in the choosing of a vocation and to develop satisfying avocational interests for others.

- *To develop* an awareness of good design and craftsmanship in order to prepare the student for his future role as a consumer.

## Purposes of Art Education

### *The Aims of Art Education*

Education in art should be directed toward each student as an individual. It should integrate the other more specific subjects into an increased harmonization with each other and with art itself. Art education should have opportunities for self-identification, self-improvement, and a sharpening interest in the student's surroundings. A further aim of art education is to encourage creative thinking through exploration and experimentation and to increase art knowledge and skills. Art training should increase sensitivity to all living experiences and help the student develop good taste in selecting consumer products as well as works of art. The student should benefit from art in his effective use of leisure time and should be encouraged to develop his talents to the utmost. Art education will offer therapeutic benefits to many, and most important, will lead the way toward self-expression and freedom in thought.

### *Purpose in Arts in Elementary Education*

The student should be helped to use art in all its forms and to identify himself with his art experiences. A well organized art program provides for a wide range of activities that will be adequate to the child's needs and interests. Activities should be considered in relation to the whole learning program of the student. The

growth and changes in a student's behavior are the most important and are indicated by the product of his hands and mind. His work should grow out of his mind and soul. The foundation of art experiences laid in the elementary level is of great importance in developing a lasting experience.

The ability to draw is not essential for the elementary teacher in the development of an art program. The most important is his ability to inspire and stimulate the students and to evaluate their art work in terms of their creative growth.

### *Purpose of Art for Secondary Education*

In the secondary level, the art program is needed to insure maximum growth and development of the student. It must be there to complete the tasks begun in junior high, for this is when the individual is beginning to mature. Art education will provide guidance for the future and foster active community interest and participation. Its purpose is to provide for an environment that will stimulate the integration of art; enthusiasm for worth leisure time; and provide motivation for the application of techniques and processes. Through art, the student will have reached a better understanding of society and have increased his interests in the pleasures of life.

## Phases of Child Growth

The child makes pictures as naturally as he walks. Probably you noticed that even before the child learned to walk he was exploring space with his arms and legs. Around the age of two the child will be grasping any object within reach and begin his scribbling—a series of unorganized lines on the floor or wall.

Continued development of the child will show some organization of his scribbling and then the use of symbols to express ideas. A line circle becomes a head, under it the body, legs and feet—two straight lines.

The child can picture only what he has experienced although this experience may be just in the child's imagination. People, rather than things are pictured. Seldom does a child paint until both his thinking and feelings have been stimulated. You offer this stimulation by discussing with your child his experiences,

taking him to see interesting things, reading stories and poems to him, and having music on records which he can enjoy.

Young children do not see depth and distance. Often a primary school child will draw a picture of "My House" by showing the family living room. The Thanksgiving table is laid flat as if the young artist saw it as he dangles from a chandelier. A football field is flattened. To an adult it would appear that the goal posts and players were lying instead of standing. This is normal and usual.

The teacher can aid the child in his development. You cannot force or hasten. You can encourage by providing space and materials for the child's use. You can show interest and appreciation of the child's efforts. You can refrain from comments such as: "But you can't make a horse." "That doesn't look like a

soldier," "Let me show you how it should look." Rather say: "Do you want to tell me about your painting?" "I like that," "What lovely colors you have made."

Research studies of children's art work have shown that there are stages of growth and development through which children pass. The art program is based on the finding that children learn best by experimenting with materials and that children gain the confidence to think, feel, and express themselves when they are given time to work at their own pace and in their current developmental stage.

It has been found that some children pass rapidly from stage to stage while others have periods of little or no apparent progress.

*Stage 1—Manipulative and Exploratory.*

*Stage 2—Intuitive Design, Circular Configuration.*

*Stage 3—Conscious Design, Deliberate Design.*

*Stage 4—Planning and Organizing, Preplanned Design.*

*Stage 5—Expressing Near and Far, Modified Design.*

*Stage 6—Increased Realism, Expressive Design, Craftsmanship, Ingenuity, Dramatic Simplicity.*

## **Kindergarten Art Characteristics**

The role of the kindergarten teacher in regard to art is primarily to provide the child with appropriate materials, and uninterrupted time for an aesthetic experience. The teacher should have no preconceived notions about what the child should accomplish, but should accept his work without asking for an interpretation.

Due to the varied background and experience of children entering kindergarten many stages of development will be observed among children of approximately the same chronological age. Children who have never had any art experiences may exhibit very early stages of development.

It is important to let the child work at his own level of accomplishment. For this reason the art characteristics of pre-school children are given here.

### *Art Characteristics: Age 2 - 4*

Child makes random marks on paper in effort to gain control of tool.

He attempts to pile blocks.

He squeezes and punches plastic materials.

He is not trying to draw, model, or build objects; the experience is purely kinesthetic.

### *Art Characteristics: Age 4 - 7*

Ideas are expressed by symbolic lines and shapes.

Shapes become more controlled and as the child advances, he can reproduce shapes at will.

Detail develops gradually.

Usually only parts important to the expression are used. (If legs are not important, they may not appear on the figure.)

There is usually no relationship of color to object.

Color is emotional.

### *Art Characteristics: Age 8 - 9*

The child expresses what he knows, not what he sees.

He divides his paper into three areas—a ground (sometimes called base line), air, and sky.



He often exaggerates the things that are important to him.

He has discovered the relationship between color and objects.

He may show episodes occurring at different times in the same picture.

He may draw pictures from both sides of a center or all around a center.

He may make X-ray pictures. (X-ray picture is a name for another interesting non-visual way of drawing to show different views that could not possibly be seen simultaneously. He depicts the inside and outside together whenever, for the child, the inside is emotionally of more significance than the outside. Frequently, both are used according to how much meaning either the outside or inside has for the child.)

### ***Art Characteristics: Age 10 - 11***

His awareness of color is more acute; he is more color conscious.

He uses color more realistically.

He becomes self-critical.

His figures may become still with great emphasis on detail.

He may leave out people because they are "too hard to draw."

He may copy from others because of insecure feelings.

He often desires to label objects and give words to people and objects.



His ideas come from real life experiences, from flight of fancy, the world around him, imagination, and television.

He may overlap objects in his pictures.

There is some continued use of exaggeration of important parts.

## **Junior High Art**

The junior high school student is at a transitional stage in his development. He becomes increasingly more aware of adult standards and grows more critical of his work. For this reason it is very important that art experiences be enjoyable, useful, and challenging. This should be a period of exploration and discovery.

In this guide we have included many processes and materials for exploration to meet the varying needs and interests of children from ages 12 to 14. It is not expected that the teacher will have time to introduce students to all of the activities. Rather, this should be left to the discretion of the individual teacher. He or she should strive for a good balance between various two- and three-dimensional problems as well as art appreciation experiences.

All learning in art and crafts should contribute to growth of the child's knowledge and of his ability to use the elements of art and the basic principles of composition.



## Goals for the Junior High Art Program

*The student's appreciation of the relationship between art and daily living.*

*An opportunity for the child to express himself creatively and grow through a variety of experiences.*

*Help the child with the form and function of tools and materials and standards of good design and craftsmanship.*

*An appreciation of art of the past and present as a form of communication.*

*Art with all other areas of the curriculum.*

*Independent thinking and flexibility in problem solving.*

*Develop the student's awareness to the possibilities of a rewarding hobby or career in the art field.*

*Cooperation in group activities and respect for the work of others.*

*The experience of working with a variety of materials, tools, and equipment which may later lead to a vocation, a rewarding hobby, or good use of leisure time.*

*An opportunity to study the possibilities and limitations of these materials, to design and execute aesthetically satisfying as well as useful objects.*

*Participation in group activities, thus giving a sense of belonging and self-realization through achievement.*

*An appreciation of the role crafts has played in the history of civilization, of the relationship of crafts to industry.*

*A respect for good craftsmanship, forms and designs appropriate to the materials used, and functions for which the objects are designed.*

*Individual responsibility, good work habits, the care of tools and equipment.*

### *Growth and Development: 12 - 14 Years*

#### PHYSICAL GROWTH—

Has periods of rapid physical growth characterized by periods of sluggishness and lack of skills; applies enormous expenditures of energy in daily tasks.

#### BEHAVIOR PATTERNS—

Is mainly concerned with the "peer" group and achieving status within his environment.

Is responsive to worthwhile tasks.

Desires attention.

Has frequent "crushes."

Has a tendency to deny interest in things and people he likes.

#### CHARACTERISTICS OF WORK—

Is able to do progressively intricate work.

Is very much interested in material things.

Is very realistic in his work.

Is at times careless—at times meticulous.

Makes work to be "kept."



#### REQUIREMENTS—

Requires satisfaction of physical needs.

Needs to understand and gain control over environment (role playing).

Needs to become a social personality

Needs to develop and maintain ever-widening and deepening intellectual and aesthetic interests.

Needs to further the cultural value system.

Needs to engage in large group activities in organization such as stage projects, puppets, decoration.



# Senior High Art

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The art program in the senior high school is an extension of junior high school learning experiences, but with significant changes in emphasis. The work at this level is more technical and advanced, it involves more processes and should offer increasing challenges to the students' abilities with special interests being developed more fully.

The art curriculum must meet the needs of individuals whose goals in life vary greatly. It must meet the particular needs of those preparing for college, those terminating their formal education with high school and those electing courses for the purpose of making further educational and vocational choices. A significant degree of creative independence and originality should be expected from every individual who faces this program.

## Goals for the Senior High Art Program

*A sensitivity to and an appreciation of art.*

*The importance of creativity, originality, thoughtful planning, simplicity, sensitive execution, depth, force, variety, and respect for craftsmanship.*

*A knowledge of the elements of design and the principles of composition.*

*Growth of character of the individual by encouraging him to follow all projects through to satisfactory completion.*

*A respect for the work of others.*

*To provide recommendations in the choosing of a vocation.*

*The appreciation for art during that stage of development when many young adults are undergoing stresses and changes.*

*Respect for good craftsmanship.*

*Appreciation of art forms and a growing sensitivity for design and good taste.*

*Develop techniques and increase skills.*

*Appreciation for the history of different crafts—their value to the growth of civilization and their relationship to contemporary living.*

*Understanding of crafts as it applies to industry.*

*Honest creative effort in designing a useful or decorative object and developing it to its conclusion.*

*Individual responsibility and leadership.*

*Working with various materials, to explore their possibilities and their limitations.*

*Individuality in an age of conformity and regimentation.*

*Profitable and intelligent use of leisure time.*

## Growth and Development: 15 - 18 Years

### PHYSICAL GROWTH—

Continues to grow and takes on appearance of a mature individual.



Has a wide range of physical development at this age.

Is self-conscious about his physical appearance.

Has emotions that may be very intense.

### BEHAVIOR PATTERNS—

Is prone to hero worship.

Holds material things as symbols of success.

Tends to censor his actions according to the conventions of the society in which he lives.

Is very sensitive to criticism.

Evaluates himself more critically.

Rejects authority—conflict with parents and teachers who treat him as a child.

### CHARACTERISTICS OF WORK—

Tends to be more illustrative in drawing and painting.

Demonstrates more ability to interpret art in a more abstract manner.

Shows more specialized interests—crafts, painting, commercial.

Increased in skill and ability to concentrate on work.

Is more likely to have a vocational interest in art.

### REQUIREMENTS—

Needs personal economic security.

Needs to experience success and seeks areas in which he can achieve recognition.

Needs specific training and techniques.

Will need special considerations depending upon his needs.

Needs to be given the opportunity and sufficient time to practice in order to develop skills.

Needs to be guided in developing techniques of evaluation and to be helped to appreciate the work of others.

## Suggestions for the Use of this Guide **BEST COPY AVAILABLE**

This curriculum guide contains suggested lessons, processes, and materials which the writers feel are basic to any program for art and crafts. The teacher who uses this guide should not be limited by its contents but should use it as a point of departure.

It is hoped that teachers will use the art and crafts sections interchangeably since art and crafts are so closely interrelated. The boundaries between elementary and junior high, junior high and senior high school need not be considered hard and fast divisions.

The units included are applicable to each grade level or individual. But the degree of pursuit and exposure should be increased in proportion to the ability and maturity of the individual student and the class.

It is believed the course should be given in a manner which will foster structural thinking. The experiences are planned to give the student an opportunity to seek his own answers, and to develop creative initiative.

The basic course should give a foundation for building further art experiences and for introducing specialized skills. The student can more intelligently choose specialized courses if those subject areas are briefly discussed thus offering the student direction, purpose, and goal.

### A Theory of Color

Color may be regarded by the student as something which is restricted solely to the art class. This con-



When truly presented, art awakens awareness in the student of his creative ability. He finds satisfaction through art experiences and develops confidence through this self-expression. This course should provide a basis for an understanding of the arts for the student who plans to take only one art course, and an adequate background for the student who will take further courses in art.

This study should proceed from an awareness of those factors underlying creative art and their appearance in all the arts and crafts. Enjoyment of beauty in nature and art should be promoted through experience with fundamentals to develop a broad and lasting appreciation. The difference between true art quality and superficial effect is important to the student as a consumer. Practical help in developing taste and a contemporary viewpoint of design for daily living should be offered.

cept should be broadened so as to include color as part of his daily experience. Color surrounds him; yet he may have lost the uninhibited joy of color sensation he possessed as a young child. The teacher should strive to reawaken an appreciation of color by presenting it as a force acting upon him and his environment.

Scientists have shown, through experimentation with plants under filtered light, that color affects vital growth. The invisible portion of the spectrum—infra red and ultra violet—is widely used by scientists and physicians in maintaining and restoring health. The therapeutic value of color is recognized by the psychiatrist. It becomes an instrument through which he can diagnose conflict in the emotionally disturbed.

The commercial world is fully aware of color as a means of making products attractive and color has been an eloquent salesman in magazines, outdoor bul-

letin, and displays. The student will be taking his place in the community as a consumer of manufactured products, as a home owner, and as an individ-

ual directing the growth and planning of his city. The teacher will realize the opportunity for helping the student develop attitudes and taste concerning col-

**REFERENCES:**

*The Enjoyment and Use of Color.*

Walter Sargent  
*Color and Colors,*  
Matthew Luckiesh

**MEDIA**

White paper  
Prism

**NOTE TO 2b:**

An example would be to recall the experience of seeing iron heated. Heat causes the molecules to vibrate which in turn produces light waves that the eye receives as color—red, yellow, to white.

**NOTE to c(1):**

Show the effect of this factor on display work where colored light can distort the appearance of products. Where colored light affects mood. How it helps in merchandising and sales.

**I. COLOR**

**A. Color as a property of light.**

1. Objective—To explain that light waves determine the colors we see, and that the colors of objects exist only in our consciousness.

2. Method—Use demonstration, lecture, discussion together with any practical application which can be carried out with available material and equipment.

a. Show that light is polychromatic by refracting and dispersing it through a prism: (Violet, blue, green, yellow, orange, red.) Other natural examples: rainbow, oil on water, soap bubbles, etc.

b. Explain that sub-atomic vibrations produce electro-magnetic waves that are of different length and frequency. The length of these waves determines the color; *i. e.*, the longest produces red—the shortest produces violet.

c. Reflection and absorption determine the color of objects.

(1) Color of opaque objects depends upon both the color reflected from the object, and the color of light that falls upon the object.

(2) Color of transparent objects depends upon the color of the waves which pass through them. Ordinary window glass transmits all colors and is said to be colorless, while colored glass absorbs all colors and transmits its own color.

d. The primary colors of light are red, green, and violet blue. (These three colors are related to response factors in human vision which transform mixtures of wave lengths into mixtures of colors.) All possible colors produced through the mixture of these primaries are yellow, red-blue, and blue-green.

The light theory has been introduced in this guide to explain the origin and perception of color. Presentation of the light and pigment theories can lead to confusion if one makes extensive comparisons between the two. It might be better if one explains that we receive the sensation of color from pigments of the light color theory. The relationship between the two theories would be through the pigment primaries which are in reality the light complementaries. The reason for this is explained by the following combinations of light primaries: Red and green light produce the sensation of yellow; green and blue the sensation of blue-green; red and blue the sensation of bluish-red. It should be mentioned also that when the pigments are mixed, they produce the sensation of green. When pigments are mixed each one subtracts certain colors from white light with the resulting color dependent upon those waves not absorbed. The yellow pigment subtracts certain colors from white light with the resulting color dependent upon those waves not absorbed. The yellow pigment subtracts blue from white light; blue-green subtracts red from the white light. The sensation of green is produced because it is the only color not absorbed.



**NOTE:**

Discuss the use of colored light in display, stage, exhibitions, etc. Explorations of colored light can be carried out with the use of colored gelatin (used in stage work) and a slide projector. Interesting "light paintings" can be made using a non-objective approach to composition. The physics teacher might be called upon for apparatus and teaching aids used in his department to demonstrate color.

**REFERENCES:**

- Art of Color and Design,*  
Graves Maitland  
*Principles of Art Appreciation,*  
Stephen Pepper  
*Color Systems,*  
Hiler, Munsell and Ostwald

**NOTE:**

After discovering the factors contributing to color perception, the student introduced to a study of color using pigments. The teacher is urged to present color and other areas of this course simultaneously. The student more readily grasps the theory of color, if it is applied to practical situations.

**MEDIA:**

- Poster paint  
White paper  
Brushes  
Scissors  
Glue

**NOTE:**

Knowledge of color mixture and matching can be gained through practice only. Working on individual chips of paper frees the student from fear of having a complete color exercise to do over if a mistake is made. These examples are arranged to see the relationship of the hues of the color wheel, but do not paste to a background. They may be used later in other color experiments. The student can arrange the color examples on a black paper background in warm and cool groups. The spatial effect of color can be observed at the same time.

**B. The Pigment Theory**

1. **Objective**—to present primary (hue, value, intensity) and secondary (warm and cool, advancing-receding, etc.) characterizations of color as a basis for color organization in painting and design.

2. **Method**—Use demonstration, lecture, discussion together with student application of material presented

a. **Primary characteristics of color.**

1. **Pigment primaries** and lemon-yellow magenta, and cyanic. (The teacher will find a need to adjust the pigments available to attain these hues.)

**HUE**—Refers to the chromatic quality by which we distinguish one color from another, i. e., red, blue, green, etc. To change a hue we must mix another to it. Thus our color wheel is expanded.

**VALUE**—Refers to the relationship of a color to white and to black, i. e., dark red, light red. The value of a hue may be altered through the mixture of black or white. A value scale may be constructed with nine value steps from white to black. Tints, tints, and shades can be matched to this scale to show value as a color characteristic.

**INTENSITY**—Refers to the strength of a hue and is the opposite of grayness. The intensity of a hue may be reduced through mixture with gray or with its complement.

b. Demonstrate how mixtures of the primaries produce intermediate hues which in turn produce variations. Use of poster color should be explained and the method of achieving smooth application by employing a wash technique. The student should prepare a number of hues and paint them on shapes of white drawing paper to cut a uniform size (1" x 2" for example). Ten hues would be sufficient for this exercise and would make a complete color wheel.

**COMPLEMENT HUES**—Are those which appear opposite each other on the color wheel and which produce a natural gray when mixed in the proper proportions.

c. Complementary hues can be shown to the student, using a color wheel, but the after-image experiment has more lasting value. Experimentation in producing complements should be followed by their use in graying color. Show how side-by-side complements enhance each other. Mention the value of grayed complements to color organization.

**TINT**—Refers to the mixture of white with a hue. In transparent water color a tint would be produced by dilution of the color.

**SHADE**—Refers to the mixture of black to a hue which is either opaque or transparent.

d. Colored examples should be prepared using the ten hues (see b) as a basis for mixture with white and black. Reference should be made to the gray scale and to show that value is present in tint and shade.

e. **Secondary characteristics of color** (so termed because they are present only by the virtue of the existence of the hue.)

(1) Quality and vibrancy in color can be produced by a mingling of hues of nearly the same value and reflected from the same surface. A plain hue lacks interest. An area of blue may, on closer examination, contain greens, purples, violet-browns all mixed in the eye of the observer to produce a vibrant sensation of blue.

(2) Warmth and coolness.

Colors in the red, orange, yellow portion of the spectrum seem to convey warmth, while the greens, blues, violets convey coolness. It can be used to evoke emotional effects for warm colors are associated with fire, comfort, friendship, and love. Cool colors may be used to suggest solitude, loneliness, aloofness, age, and death.

(3) Advancing and receding color.

Color exhibits spatial effects which the artist can use to his advantage. Cool colors retreat and warm colors advance, but the effect is not strong and may be upset by other spatial hues in drawing. Dark hues sometimes exhibit characteristics of sinking into the picture plane. The spatial effect of color is strengthened through saturated color.

(4) Weight.

Dark colors appear to be heavier in color usage. This can be employed to advantage in color balance. Delicacy can be shown with tints and light hues; strength can be shown with shades and dark hues.

**NOTE:**

Demonstrating the effect of after-image is an exciting way to introduce the complementary colors. Place any hue on a white background and stare intently at it for 30 seconds. Remove the hue example and stare at the blank white paper. The complement will appear in the place previously occupied by the hue example.

**C. Harmony**

1. **Objective**—to present some established methods for finding color harmony.
2. **Method**—Harmonies can be explained to the student as consisting of hues in varying combinations which produce a unified whole. The color harmonies should not be prepared for their own sake, but should be part of a painting problem dealing with one of the areas of this course. If we are to teach students to work creatively, then we must foster individual solutions to color harmony.

a. Complementary harmony is made up of directly opposite hues on the color wheel.

(1) Split complementary harmony is made with a hue, plus the colors on each side of its complement.

b. Analogous harmony is made up of hues adjacent to each other on the color wheel.

(1) Split analogous harmony is made by skipping one of the adjacent hues and using the next. Two adjacent colors may be too close to be appreciated.

c. Triadic harmony is made by combining three hues equally spaced on the color wheel.

d. Monochromatic harmony is made with one hue and one or more of its tints or shades.

The student now has a knowledge of color which needs only to be applied to develop sensitivity and taste. Everyone has a feeling of color, but mistrusts it when called upon to use it. The student's contact with color in "Wonders of the Arts" did a great deal toward re-awakening the joy in using color. Free experimentation with color mingling, etc., is important in developing a creative attitude toward this subject.

**II. LIGHT AND SHADE****A. The illusion of volume (three-dimensional form)**

1. **Objective**—To demonstrate the effectiveness of light and shade to create a three-dimensional effect.

2. **Method**—Crumple a sheet of newsprint (12" x 18") and then open and partly flatten the sheet. Spray the paper from one direction, using a spray gun, a fixative sprayer, and diluted poster paint. The paint will hit only the planes facing the spray. When the paper is completely flattened out the illusion of jagged and raised sections will be highly realistic. This simple experiment will demonstrate planes of different value, emphasized edges, and gradation.

**B. Volume expressed through light and shade.**

1. **Objective**—To learn to define volume through light and shade.

2. **Method**—Have the student draw simple objects using the side of the lithographic crayon. The edge of the object is defined by the broad stroke of the crayon which creates the effect of shade. The "light" edge of the object can be suggested by darkening the background and producing a contour through contact with adjacent areas.

**C. Distinguish planes through light and shade.**

1. **Objective**—To see an object bounded by planes whose surfaces reflect differing quantities of light.

2. **Method**—The student should draw a cube using three different values to separate the planes. The cube should be related to a picture plane of a particular value. Definite value separation of the surfaces of the cube will create a solid three-dimensional effect.

**D. Emphasizing edges of planes.**

1. **Objective**—To heighten the effect of volume through a dramatization of the edges.

2. **Method**—The student should use a subject which his interest suggests. Indicate the object lightly with the side of the lithographic crayon. After value relationships are decided upon, emphasis is placed on edges or corners, or curved surfaces. The method is to contrast light against dark and dark against light. A great deal of solidity can be obtained with this technique.

**NOTE:**

The problem of light and shade lends itself to integration with the entire course. Washes of transparent water color could be floated over the drawings. Advancing-receding color could lend emphasis to the spatial effect.

**MEDIA:**

Newsprint  
Drawing paper  
Pens  
Ink  
Chalk  
Water color  
Poster color

**III. FIGURE DRAWING AND PORTRAITURE**

**A. A variety of approaches.**

1. **Objective**—To continue the exploratory approach to constructing the figure to enable the student to "discover" a method with which he has success.
2. **Method**—Suggest a series of rapid techniques for recording the figure. Employ a variety of materials allowing the student to discover his own methods of combination. Suggestions: (a) "meandering line" seeking to build up mass and contour. Ink or pencil could be used, together with a wash of water color, (b) colored mass of rubbed chalk—chalk dust applied with felt pad and ink brush line, (c) shaded areas brushed in directly with poster colors and "light" areas detailed with line. This type of approach maintains student interest through variety of technique and media. These drawings should be direct and rapid to develop the student's confidence in his judgment of employing line and mass to express form. These drawings may be timed if the teacher feels it would be helpful.



**B. Figure Study**

1. **Objective**—To gain exact information and to develop skill in drawing the human figure.
2. **Method**—Demonstrate to the student a logical approach to blocking out the figure with emphasis on proportion and balance. Using the head as a basic unit of measurement, the student can control proportion. Information on proportion of the figure for drawing for specialized fields should be mentioned at this point. The student needs help in simplification of his drawing and in developing the large masses of his drawing before attempting detail. Simplified methods of drawing the features of the head and hands would be helpful.

**MEDIA:**

Newsprint  
Charcoal

**NOTE:**

Up to this point the figure has been presented through exploratory drawings. It may be beneficial, at this point, to have the student work on figure drawings which require close observation and sustained effort.

**C. Figure Composition**

1. **Objective**—To compose figures singularly and in groups relating them to space.
2. **Method**—Have the student compose groups from the sketches made for figure study (Sec. B). The poses might be slightly altered so the figures will not have a "labored" appearance, which often results from redrawing a figure. The application of perspective to figures and surrounding objects will give a unified effect.

Figures sometimes appear "floating" or "passing through" solid objects, or "standing in a pit." A diagram (a) of objects and figures showing the position they occupy on the ground may help to clarify the fault of not allowing enough space for each object (passing through solid objects). A second diagram (b) employing a ground plane and converging lines will clarify the incorrect reference to the ground plane. (Also see Sec. IV, E., Freehand Drawing.) Figure drawing is a rich field for creative self-expression for the adolescent. Portraiture and figure drawing is especially meaningful to this age level, and it becomes a means for the student to integrate art and environment. Expressing, investigating, interpreting environment and developing wholesome attitudes toward it becomes a worthwhile social goal. The student's interest in figure drawing can be easily destroyed by an approach which stresses professional standards.

## Suggested Problems

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### I. COLOR

A. Introduction of color as a means of student exploration of materials.

1. Objective—Through many processes the student becomes aware of color relationships, techniques, and combinations of media.

2. Method—Using newsprint or drawing paper, have the student mark off 4" squares. Inside this area color is applied, using a wide variety of applications. Show that color can be applied using tools rather than the brush; for example, sponge, cloth, and sprayer. Mingling, gradation, dry-brush, and floatation of color are expressive means of using watercolor. After student has begun this experimental approach, his interest will carry him into many experiments on his own initiative.

A two inch square cut from a piece of paper can serve as a "selector" which is used to find the best section of the four inch painted area. This section is cut out and can be mounted on drawing paper to form a visual vocabulary. The arrangement of the chart can be a problem in design.

B. Color Painting

1. Objective—To become aware of the emotional expressiveness of color.

2. Method—A logical outgrowth of color experimentation is a non-objective approach to painting.

a. Mixed media is successful for this type of work. Suggest to the student to work without a preconceived design, and without a representational aim. Working quickly is most successful, putting down colors as they seem to relate to each other. The student still discovers that he is making decisions concerning color and shape which are dependent upon his own artistic judgment. Shape of the color areas is inevitable and design enters into the painting with the first stroke of color. It is suggested that the teacher guide the student away from undesirable symmetrical patterns. A period of student evaluation should follow these free exercises, and each individual can share his "findings" with the class. Most students enjoy group activities, and this sharing of ideas can become a means of integrating art and social experiences.

b. The paintings should be developed into designed color shapes. Painting directly, making adjustments as the work progresses, allows for a more "painterly" approach than "filling between lines" of a penciled layout. The student will need help in seeing the elements of painting in their relationship—for example, achieving balance, contrast, and harmony.

c. Discuss and explore color as a means of consciously expressing a mood, or symbolizing an idea. A variety of materials lend themselves to these color experiences. Printing inks may be used to achieve rich tonal effects.

d. Printer's ink can be applied by rolling the brayer on the inked glass slab, or by putting the ink directly on to the brayer. A variety of textural effects are possible using both methods in combination.

Transparency of some printing inks is especially appealing and shows the effectiveness of this quality in achieving spatial effects. Masks can be used to enrich the design by holding back ink from some areas, or allowing it to pass through, as the desired effect might require.

Monotype printing could grow from this approach if the teacher felt it would be profitable for the student at this time. Monotypes can be made as follows: Apply printer's ink to a glass slab using a brayer to distribute the ink in an even layer. The format of the design is limited by paper strips which block-out unwanted inked areas on the edge of the glass slab. The inked area inside of the paper strips can be treated in a variety of ways to produce the design.

Drawing, scratching, combing of the inked surface, lifting out areas with paper patterns may be employed by the student. Experiment. Place a sheet of thin paper over a design and rub evenly with a smooth, flat surface to make the print. The paper is then peeled carefully from the glass, and the print is allowed to dry.

Factual information regarding color theory can be introduced as the need arises. The student should know the primary characteristics of color—hue, value, intensity. Class discussion and demonstration may be used to introduce color temperature, weight, spatial effect and other secondary color characteristics. Recognition of these characteristics in art and nature and correct use of terminology may be sufficient in the introductory course.

#### MEDIA:

Drawing paper  
Water color  
Crayon  
Poster paint  
Ink  
Pens  
Cloth

#### NOTE:

The student's introductory experiences are in color because of the immediate interest it stimulates. Manipulative technique permits the student to work at his own level.

#### REFERENCES:

*Exploring Art,*  
Kains and Riley  
*Art Activities,*  
Wickiser  
*New Art Education,*  
Pearson

#### NOTE:

Music has been used successfully with this type of painting. The teacher may wish to have the student interpret musical compositions.

#### MEDIA:

Newsprint  
Printer's ink  
Brayer  
Glass slab  
Turpentine  
Spatula  
Rags

#### REFERENCES:

*Design*  
Sybil Emerson  
(Complete description  
of monotype process)



A concentrated study of color will be presented to the student in *Advanced Drawing and Painting* after he has a background of drawing and using color.

The intention of *Wonders of the Arts* is to give the student a variety of introductory experiences, and time may not permit a more detailed study of this subject. However, the needs and interests of the student will determine the time spent on any one area. The effect of color on our lives and its function in meeting the needs of daily living should be the keynote.

## II. DESIGN

The exploration of color shapes leads the student to an awareness of design. His knowledge of design should include an understanding of its usage. Thus principles as outlined in this section should include a consideration of the articles of daily living, of dress, and of the home, as well as the "fine arts."

### A. Design Elements

1. Objective—To acquaint the student with design elements and their characteristics.

2. Method—It is suggested that the teacher discuss design elements as they exist in nature and man-made objects. Point out, for example, the graceful line revealed in a blade of grass may also be found in a Japanese brush drawing or a ceramic bowl.

a. Line—defined as movement—actual or implied—as its basic quality. Discuss empathy—the bodily projection of bodily movement to objects—as strengthening perception and enjoyment of line.

(1) Experimentation to produce types of line.

(a) Implied line (an imaginary line formed as the eye connects similar points), dotted line, line termini, closure.

(b) Adjacent color areas.

(c) Draftsman line (weight, length, direction).

(2) Line used to convey emotion.

(3) Character of line.

(a) Ruled line—cold, unyielding; freehand line—confident, timid. Simple compositions can be devised to illustrate the varied character of line. An accidental figure created by dropping damp string can be expressed in a freehand line. Felt brushes (or Flomaster pens) can be used to connect points located at random. Dripping color creates varied accentuated line. Line arrangements could be used to teach two-dimensional space division.

b. Shape—defined as the contour and mass of an object expressed through draftsman's line or adjacent color (value) areas.

(1) Two-dimensional arrangements of line, mass, and color can be drawn in chalk. Experimentation with geometric and free shapes show the endless variations that can be invented.

(2) Demonstrate the relationship of positive and negative space through arrangements of free forms.

c. Texture—defined as an object's surface appearance resulting from its structure of form a change due to nature or machine. The student should be shown examples of natural and man-made texture. Tactile charts of contrasting textures (cloth, sandpaper, wire-screen, etc.) can be arranged to make a collage.

(1) Texture created through the use of a medium. Dry-brush, cross-hatching, etc. Natural textures rendered through combined media to summarize experiences with actual textural surfaces and to develop control of media.

(2) Texture can express a mood or emotion.

(3) The uses of texture for visual interest in fields outside of painting should be considered. Texture as used in architecture, home decoration, and clothing lends a "practical" application to the study of this design element.

d. Value—Defined as a scale of gradations from white to black. Discuss color and value.

(1) A drawing of intersecting shapes can be used for an exercise of value distributing. Mention using key values to achieve mood.

e. Volume—Defined in terms of three-dimensional reality and its illusion on the two-dimensional picture plane. The beginning student usually experiences difficulty in expressing volume in drawing and painting. However, representation of space may be better understood if he is made aware of how he understands actual

### REFERENCE:

*Art of Color and Design*,  
Maitland Graves  
*Color, Form, and Space*,  
Faber Birren  
*Creative Color*,  
Faber Birren  
*Sight and Insight*,  
Alexander Eliot  
*The Mixing of Colors  
and Paints*,  
Vanderwalker

### MEDIA:

Depends on problems chosen

### REFERENCE:

*Principles of Art  
Appreciation*,  
Pepper

### NOTE:

Color as an element of design has been presented in *Advanced Freehand Drawing*, Sec. 1

### REFERENCE:

*The New Vision*,  
Moholy-Nagy

### NOTE:

Rubbings can be made by placing paper directly over the textured surface. Textures might also be printed with pieces of wood, cloth, etc., by dipping these materials in ink or paint and stamping.

### MEDIA:

Drawing paper  
Chalk  
Pencil  
Ink  
Watercolor  
Crayons

**MEDIA:**

Drawing paper  
Pencil  
Scissors  
Stapler  
Paste or Scotch tape

space. Explain that seeing and drawing employ overlapping, convergences, and change in scale as depth cues.

(1) Through simplified cut paper forms and parallel perspective, the student can be introduced to three-dimensional design and its illusion on the flat plane. Using still drawing paper, fold it through the center vertically to make a right-angle fold. This makes a space construction which serves as a model for demonstrating parallel perspective. (d) Additional cut and right-angle folds, varying the number and direction of planes, develop three-dimensional design, and offer a more complex drawing model.

(2) Several geometric shapes representing the elements of a cityscape or landscape can be used to demonstrate scale, overlapping, and position as spatial devices.

(3) Paper sculpture can be useful in studying volume relationships which are basic to design in crafts, sculpture, and architecture.

**B. Design Principles**

1. Objective—To introduce the student to the organizing principles of design and to stress these principles as universal in the visual arts.

2. Method—The student should be made aware of the flexibility of these principles—for personal experience conditions their interpretation and makes for variety. Point out the characteristics of the picture plane as the field on which the design elements function.

**MEDIA:**

All graphic media  
Drawing paper  
Newsprint  
Chalk  
Brush  
Ink  
Poster color  
Water color

**III. COMPOSITION****A. Landscape Composition**

1. Objective—To create an awareness of nature through observation and graphic interpretation of environment.

2. Method—Discuss problems related to outdoor sketching. Selecting the subject requires an ability to see and to feel which is more than mere objective vision. The student must learn to see selectively, simplifying the mass of detail to present an organized picture. Show reproductions of various artists' work to point out methods which were used to interpret nature and organize the painting.

a. Space Representation—Basic perspective should be introduced as the need for such information is felt. A combination of several methods of space representation would offer the student more flexibility in expression. It is felt that over-emphasis on the mechanics of perspective may be restrictive. An introduction to the following would be sufficient:

(1) Demonstrate parallel perspective. Show the effect created by overlapping planes, change in scale, and position.

(2) Explain how color can be used to strengthen the illusion of space.

(3) Demonstrate simple perspective. Explain such terms as "eye level," "vanishing point," and "convergence." None of these methods should become isolated exercises performed for mastery of the technique. Without feeling an immediate need for this knowledge, the student may regard it as a meaningless activity.

b. Composition—Have the student develop his sketches into an organized composition. Discuss those qualities that contribute to successful organization. Show means by which the elements within the sketch can be readjusted, establishing new relationships. Developing the sketch should be a creative experience, working directly with materials that encourage freedom.

**B. Figure Drawing**

1. Objective—To meet the student's interest in figure drawing.

2. Method—Figure drawing is a favored activity with this age group. The student is capable of interpreting the figure in a variety of media either directly as in a single figure drawn in freebrush or in more sustained efforts as figure groups composed in space. Drawing should be made from both the posed figure and from imagination.

In view of the student's interest in factual representation, the teacher should strive to stimulate an imaginative approach. Drawings made from the posed figure can be valuable in freeing the student from stereotyped representation. Many approaches should be tried, using both visual and emotional stimulation.

## REFERENCES:

- Life Drawing*  
John Napper and Nicholas  
Mosely Studio  
*The Human Figure*,  
David Rebins, Viking  
*The Natural Way to Draw*,  
Nicholas, Houghton  
*Drawing Lessons from the  
Great Masters*,  
Robert Hale,  
Watson-Guptill

## MEDIA:

Newsprint  
Chalk  
Brush  
Watercolor  
Pencil  
Conté crayon  
Ink  
Magic Markers  
Ball point pens

## MEDIA:

Newsprint  
Charcoal  
Chalk

## NOTE:

This section might be presented as portraiture, or as supplementary figure drawing experience, depending upon the needs and interests of the group.

## MEDIA:

Drawing paper  
Newsprint  
Charcoal  
Pen  
Ink  
Chalk  
Poster paint

## NOTE:

A flexible reflective surface such as a silvered plastic sheet when twisted produces a distorted image that presents an excellent illustration of the impact of distortion.

a. Quick action sketches—Sketches in brush or chalk may be used as introductory experience to figure drawing. The sketch should express the action of the figure. Proportion is sought instinctively. After familiarity has been gained with drawing the single figure, the student should attempt figure groups. Line and mass drawing can be used or both can be combined.

b. Figure construction—Basic figure proportion should be introduced with emphasis that it is to be used as a guide. The possibility exists that the student may lose the sparkle and freshness in his work if he is made more aware of exact proportion than making an expressive, original statement. Show the articulation of the figure by means of "stick-figure" drawings. Demonstrate simplified methods of drawing hands and feet.

c. Contour drawing—This activity promotes close observation of the figure and helps the student to store information for imaginative drawing. Stress that sureness and quality of line is dependent upon observation. Later the individual contour drawings can be developed into compositions planning the figures in environmental surroundings.

d. Portraits—Portraits can be drawn in the contour or mass technique. Demonstrate placement of features in front, profile, and three-quarter views. The students enjoy drawing each other and meaningful group experiences can be developed in which each student poses in turn for his neighbor. Ask the student to look for means of expressing character in his drawings. Show how line, color, and technique all contribute to the total effect. Show prints that may exhibit contrasting techniques used by artists to portray the character of their subject. Simplified methods of drawing the features of the face should be demonstrated. Have the student work directly with the brush and color to paint a portrait of a friend or even his own self-portrait. Show how position and direction of lines can establish mood. The student should try several positions of the head. One period could be set aside at regular intervals throughout the semester to introduce an activity for which time otherwise might not be found. This activity might relate to a problem in progress in terms of subject matter or technique. For example, cartooning might be introduced to supplement portrait drawing, wire sculpture might add three-dimensional reality to the study of line, or experimentation with a different technique might stimulate new interests in painting and drawing.

## C. Drawing the head

1. Objective—To present a basic form for the construction of the head and location of the features.

2. Method—Use a basic form for the construction of the head, which is the same type as that employed in the lessons on figure drawing. For uniformity, this guide uses a block form. The merit of this form is that it leads to a better understanding of the planes of the head. Have the student try the basic head in various positions of turning and tilting. Foreshortening can be explained with cubes drawn in perspective. Basic principles in the location of features can be presented in the form of a blackboard diagram. With the establishment of a basic head and the location of the features, the student is introduced to adding the features in generalized form. Experiment with light and shade on the basic head.

## D. The Portrait Head

1. Objective—To develop a degree of skill in drawing the head and individualizing the features.

2. Method—The students use each other as models to keep the features from becoming stereotyped. Poses are varied with the surrounding space. To demonstrate how light and shade define structure, have the student construct a head using only shade. (See Sec. II, B, and diagram a.) Interpretative drawing is a valuable experience for the student and it keeps the drawing from being lifeless recordings. A discussion of the emotional use of color, together with imagination and symbolic use of drawing could serve as a starting point. Visual examples would be the work of Van Gogh, Matisse, El Greco.

## IV. APPROACHES TO PAINTING



## REFERENCE:

*Gouache Painting,*  
Arnold Blauche

## MEDIA:

Drawing paper  
Tracing paper  
Illustration board  
Water color paper  
Opaque water color

## NOTE:

While the development of the sketch is important, it should not be carried to the point where it takes the place of the finished work. It is possible to exhaust the interest of the student in requiring too many preliminary sketches.

The student has been introduced to work in color in a variety of ways from the K-12 curriculum. The approach has been to present situations through which the student could investigate and experiment with materials and methods. Basic facts have been acquired through personal experience and through methods which foster creative growth. The complex elements of painting have been introduced slowly so they could be solved individually without discouragement. The function of this section is to draw together and restate the elements of drawing and painting through the medium of opaque water color. It suggests one approach to painting using a still-life as subject matter.

Individuals vary in their response to any one method and the teacher will find it necessary to employ means by which the needs of the group can be met. At this stage of development the student has a background of drawing which should enable him to express himself freely. The teacher should suggest methods of "seeing" objects imaginatively to aid the student in finding a creative approach. For example, before starting a still-life painting, the following methods may offer paths to explore in paintings:

- Move about the subject to fuse many views into one.
- Choose an unusual viewpoint or lighting.
- Use an extreme change in scale to create an "unusual" effect.
- Experiment with different space representations.
- Interpret the subject through knowledge of the structure of the object rather than the surface appearance.
- Dramatize the subject through expressive use of color.

With many approaches offered, the student will find one to meet his present level of understanding and will offer a goal other than mimic recording of objects.

## A. Developing the sketch.

1. Objective—To offer a method of developing controlled expression using an investigative technique.

2. Method—The interpretation of the subject is arrived at through trial sketches and teacher discussions with the student regarding means of "seeing" creatively. All sketches should be made proportionate in size to the finished painting. Small sketches are to be preferred because the student can view relationships more easily and is prevented from making detailed studies. Sketches which are developed into "miniature paintings" induce copying them when enlarged for the finished painting. The fresh, spontaneous effect so often seen in the sketch is lost through this copy technique. The value sketches, which are prepared as a basis for light and dark arrangement of color, should continue the search for good composition. The value sketch is made identical in size to the trial sketches done in line. Have the student cover the sketch with a single value to set the "key" to the arrangement. Each form is then freely brushed in with a value selected with regard to the "key" value. Using a brush to lay in the values, without previous pencilings, frees the student from the "draw and color in between the lines" technique. Mention should be made of the use of value to unify a composition, to create a mood or effect, and to stress or minimize an area.

After making a selection of the best value arrangement the color sketches can be approached using the same technique. Using a format of the same size as that employed for the value sketch, the student should wash on a key color. The value of the key color is derived from the value sketch. The color composition is easier for the student to unify if the entire paper is covered with the key color.

Discuss color harmony, distribution and design. Review the secondary characteristics of color and their relationship to the sketch. The student should be encouraged to try several solutions to the color sketch; for example, through the use of pure color, grayed color, mood, etc. The finished work may be carried out using one of the following:

- a. Compartmental color—in which the color remains closed within the separate shapes or volumes.
- b. Open color—in which the color patterns are arbitrary and line is required to define volume and shape.

## B. Techniques

1. Objectives—To acquaint the student with painting techniques that will offer new means for expression.

**REFERENCES:**

- How to Use Creative Perspective,*  
Ernest Watson, Reinhold  
*Pencil Pictures,*  
Theodore Kwitzky, Reinhold  
*Perspective for Artists,*  
Edward Laning,  
Pitman Publishers

2. Method—Techniques offer the student inspiration to try new things. The teacher should make this area of experience vital through demonstration and visual material. Traditional methods of using water colors and gouache serve as a starting point with a gradual introduction to media used in various combinations. The student has had experience in this exploratory use of materials to portray representational objects. Show how much more exciting a painting can be when the artist employs a combined media to develop textural effects. The teacher may wish to incorporate problems with historical developments in painting. The impressionistic technique (broken color) is easy for introducing transparent water color and for experimenting with pure color. Combination of painted surfaces and collage with emphasis on textural effects abounds in cubist painting. Three-dimensional effects through warping of the picture plane, transparent effects through combinations of painted areas and colored gelatin, three-dimensional effects through relief and projected "light paintings" offer variety for those students whose interest is in painting in the future.

**Drawing**

**I. AN EXPERIMENTAL APPROACH TO LINE**

Objectives: Broad, free, direct use of line. Line used to articulate space.

**II. LINE DRAWING AS A DIRECT METHOD OF GRAPHIC EXPRESSION**

Objective: Grasp of line as a means to creatively represent objects.

**III. A CONCEPT OF FORM RELATED TO AREA**

Objective: To develop an awareness of composition.

**IV. THE ILLUSION OF THREE-DIMENSIONAL FORM AND SPACE ON FLAT SURFACE**

Objective: To create convincing representations of space and three-dimensional forms on the pictured plane.

*Objectives:*

- To increase the student's powers of observation.
- The ability to represent three-dimensional objects on a flat surface.
- To develop control over line.
- To have the student observe line quality through his own exploration.
- To develop coordination of hand and eye and power of observation.
- To see texture as visual enrichment and as a means of expressing the surface characteristics of an object.
- To introduce the student to the use of media.
- To show the expressive power of line.
- To see relationships of form within a given area.
- To see design possibilities in realistic forms.
- To acquaint the student with basic principles of linear perspective.



- To acquaint the student with a means of creating a naturalistic space representation.
- To provide opportunity for developing an awareness of environment.
- To develop a self-critical attitude in the student.

*Materials:*

<i>Tools</i>	<i>Media</i>	<i>Paper</i>
Brushes	Ink	Drawing paper
Pens	Lithocrayon	Tracing paper
Rulers	Wax crayons	Construction paper
Scissors	Hard & soft pencils	Newsprint
	Chalk	
	Charcoal	
	Water color	

*Suggested Projects:*

- Free experimentation in making line.
- Continuous line to fill space.
- "Blind" contour drawing.
- Continuous line contour drawing.
- Quick sketching with unalterable media.

Rubbings of various surfaces with pencil or litho-crayon.

Composition of geometric shapes.

Still-life composition.

Running ink line and blown in ink.

Use photographs to study one and two point perspective.

Space representation—overlapping, placement, contrast, and relative size.

Outdoor sketching.

Landscape composition—realistic, perspective planes, two-dimensional patterns, abstract compositions.

Detailed drawings and rendering from actual observation.

Development of creative designs and compositions from the results.

Cartoons and caricatures.

Creative and interpretive renditions of still life, and landscapes whether realistic or abstract.

**Study:**

Cubist Painters—Braque, Picasso, Gleizes

Drawings of Old Masters

Works of Contemporary Artists

Cartoons and caricatures in magazines and newspapers

**References:**

*Drawing*, Daniel Mendalowitz; Holt, Rinehart, and Winston

*Sketching with The Felt Tip Pen*, Henry Pitz; Viking  
*Perspective Made Easy*, Ernest Norling; Macmillan  
*How to Use Creative Perspective*, Ernest Watson; Reinhold

*Sketching Is Easy*, Arthur Zeidenberg; Bell  
*Pencil Pictures*, Theodora Kautzky; Reinhold

*Course in Pencil Sketching*, I, II, III, Ernest Watson; Reinhold

*Drawing the Line*, James Ernst; Reinhold

*Japanese Ink Painting*, Ryakyu Asito; Charles E. Tuttle Co. (Tokyo)

*Kaethe-Kollwitz Drawing*, Herbert Bittner; Thomas Yoseloff

*Drawing Lessons From the Great Masters*, Robert Hale, Watson-Guptill

*Pen, Pencil, and Brush*, Harvey Weiss; Scholastic Book Service

*150 Techniques in Art*, Hans Meyers; Reinhold

**Water Color Painting**

**Use:**

Paint tubes or pans

Brushes—

Sable

Flat

Rigger

Round

Paint box

Palette

Soft cloth and sponges

Water containers

Red sable

Nos. 4, 8, 12—pointed

½", 1"—flat

Paper

All rag—Hand made

Mold made

60, 72, 140, 200, 300

pound weights

Pencils—soft, medium

Easel

Drawing board

Thumbtacks

Tape

Razor blades

**Procedure:**

Fasten paper to drawing board or wet paper and stretch it over a wooden frame, fastening it securely and paying attention to corners. Allow paper to dry. A preliminary line drawing is helpful for architectural subjects but the student should feel free to work directly with wet washes. Making many experiments with colors and textures to become familiar with a good water color effect.

The paper is important in creating the sparkling effect that typifies water color painting. Rough textured papers should be used as well as smooth ones. A direct manner and a full brush are necessary to achieve the brilliance that is so important. Water colors should be applied at a darker or stronger intensity than oil paints because they dry lighter. This is particularly true when working outdoors on a bright, sunny day. Allow other colored areas to dry and then paint another color over the previously



painted wash. Tilting your board helps to produce a good graded wash. The razor blade can be used to scratch light lines through dark colors for some details. Much experimentation is necessary before a good result can be achieved.

**Concepts:**

- The importance of experimentation and discovering color variations.
- A knowledge of transparent and opaque techniques.
- Care of materials.
- The quick wet technique as compared to the slower dry-brush method.
- The importance of good composition and design.

**References—Water Color:**

*Water Color (The Happy Medium)*, William Schimmel; Reinhold

*Course in Wash Drawing*, Leonard Brooks; Watson-Guptill

*Watercolor Methods*, Norman Kent

*Painting the Southwest Landscape in Watercolor*, Pierce; Reinhold

*Ted Kautzky (Master of Pencil and Watercolor)*, Charles Kinghan; Reinhold

*Painting the Figure in Watercolor*, Herb Olson; Reinhold

*Ways with Watercolor*, Ted Kautzky, Reinhold

**References—Casein:**

*Casein Painting*, Henry Gasser; Watson-Guptill

*Techniques of Painting the Waterfront*, Henry Gasser; Reinhold

## Painting

Since the days of the cave dweller, painting has served as an outstanding form of expression for the artist in representing the ideas and observations of the world about him. The artist used brushes, fingers, palette knife, brayers, sponges, on canvas, wood, metals, stone, or paper to represent and clarify his moods or feelings about subjects.

**Materials:**

<i>Tools</i>	<i>Media</i>	<i>Vehicles</i>
Brushes (nylon and bristle)	Tempera	Papers
Palette knives	Oils	Cardboard
Oilcups	Water colors	Masonite
Water pans	Acrylics	Wood
	Caseins	Canvas
	Temperas	
	Enamels	
	Varnishes	
	Pastel chalks	
	Inks	
	Turpentine	
	Linseed oil	

**Painting Experiences:**

Landscapes	Murals
Still life	Abstractions
City scenes	Geometric designs
Seascapes	Optical illusions
Portraits	Illustrations

**Concepts:**

- The skillful use of materials.
- The individual style of the student.
- An important message or mood of the painting.
- Care and cleaning of brushes.
- Need for an orderly palette.

Importance of seeing the total effect rather than the parts:

**Objectives:**

- An appreciation and understanding of painting from prehistoric times to the present.
- The ability to use a variety of media in new and imaginative ways.
- A more sensitive use of color.
- An increasing ability to see, feel, explore, and relate the world around through painting.

**Materials:**

Watercolors	Colored chalk
Oil	Acrylics
Tempera (powdered and moist)	Oil crayons
Casein	Melted wax crayons
Ink	Various colored yarns and glue

**Suggested Activities:**

Finger and hand painting	Putty painting
Dry brush	Landscapes
Wet-on-brush	Interiors
Wet-on-dry	Seascapes
Crayon Resist	Cityscapes
Mural Painting	Chalk and powdered milk
Figure Compositions	Encaustic
Still-lives	Blot and blow
Portraits	Palette knife painting
Sand painting	Abstract painting
Sponge painting	Geometric painting
Spatter painting	Painting to music
String painting	Painting sensations

**Visit:**

Museums, Galleries, and Studios

# Free Hand Drawing

**BEST COPY AVAILABLE**



## Objectives:

- To develop an awareness of composition.
- To develop an awareness of the formal qualities of nature.
- To regulate drawing with color, volume, and space.
- To regard color as a means of expression and enjoyment in art and daily life.
- To enable the student to correlate art experience and environment through landscape, figure and portrait painting.
- To further the appreciation of form and color through painting.
- To express an idea graphically.
- To develop power of observation.
- To develop perception of form to portray objects representationally.
- Learning a means of representing three-dimensional forms on two-dimensional surfaces.
- To develop an awareness of the formal qualities of nature.

## References:

- The Human Figure*, David Rubens; Viking  
*Life Drawing*, John Napper and Nicholas Mosely; Studio  
*The Natural Way to Draw*, Nicolaidis, Houghton  
*Drawing Lessons from The Great Masters*, Robert Hale; Watson-Guptill  
*Drawing of the Masters: Italian, American, French, German, Spanish*, Shorewood Pub.

## I. UNDERSTANDING COLOR

To introduce the student to the physical, emotional and psychological aspects of color.

## II. LIGHT AND SHADE

1. The illusion of volume.
2. Volume expressed through light and shade.
3. Distinction of planes through light and shade.
4. Emphasizing edges of planes.

## III. FIGURE DRAWING AND PORTRAITURE

1. Variety of approaches. The student should continue to explore the construction of a figure to enable the student to "discover" a method with which he has success.
2. Figure study.
3. Figure composition.
4. Drawing the head.
5. Portrait.

## IV. DEVELOPING A SKETCH

### Materials:

Tools	Media	Paper
Brush	Water color	Drawing paper
Pens	Chalk	Tracing paper
Sticks	Ink	Newsprint
	Pencils	Illustration board
	Crayons	Poster paper

# Oil Painting

## Materials:

Tools	Media	Vehicle
Easel	Oil paints	Canvas
Palette	Turpentine	Masonite
Palette knife	Linseed oil	
Oil cups	Retouch varnish	
Paint rags	Damar varnish	
Stretcher frames		
Brushes—		
Nos. 2, 4, 6, 8		
Flat bristle		
Bright		
Round		
Filbert		
Sable		



**Procedure:**

After selecting a suitable subject, a preliminary drawing may be transferred to the canvas. Oil paints are arranged on palette in warm and cool areas. The center of the palette is used for mixing. The under-coat is usually thinned out paint with turpentine added. Pay close attention to light and shadow areas. Large masses are painted first and smaller details are put in at the end of the painting.

The next coat of paint is put on heavier with less turpentine mixed with colors. As progress is made, the student realizes that the technique is secondary and that design or composition is most important. There is no perfect formula, therefore, an oil painting could be made with a palette knife. It can be glazed, rubbed out, over painted, scumbles, impasto, or broken colored areas can be applied. The final painting details can be applied with softer sable brushes and varnish is applied before framing.

**Concepts:**

- The importance of careful planning.
- Appropriate use of materials.
- Selection of suitable subject.
- Understanding of color mixing and color harmonies.
- The knowledge of textural contrasts.
- The arrangement of the composition.

**References:**

- Tone and Colour in Landscape Painting*, Merlin Haines; Adam and Charles Black (London)
- Learning to Paint in Oil*, Jerry Farnsworth; Watson-Guption
- Painting Made Easy*, John Mills; Gramercy
- The Art and Technique of Portrait Painting*, Frederic Taubes; Dodd, Mead, and Company
- Painting Surf and Sea*, Harry Ballinger; Watson-Guption
- Portrait Painting for Beginners, Oil Painting Step by Step, Abstract*, John Pratlen; Watson-Guption

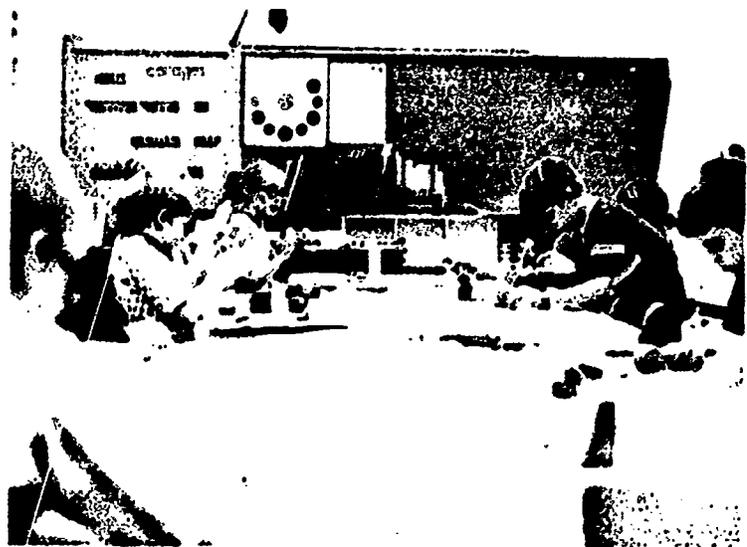
**Art Understanding**

One approach to art understanding might be developed through an introduction of historical art forms as they relate to the student's own expression. These works of art should be presented as they fit within the scope of the student's project rather than in historical or chronological order. Significant examples from various art traditions should be shown to exhibit the creativeness of man in expressing his environment. Broadening the student's understanding depends upon an awareness of social, political, and cultural forces as factors which determine art expression. It is also important for him to realize that changes in man's conception of these forces determine new art forms. A failure to recognize this often accounts for a lack of understanding beyond standards of the more "real" imitative of nature—the better.

The total should include examples of each major cultural period which produces a significant art form. To be in accord with the philosophy of the art guide, articles of daily living should be included with those of painting, architecture, and sculpture.

Aesthetic understanding of art is dependent upon an understanding of the plastic elements—line, color, value, texture, and form. Showing the student how these elements were used to express ideas and needs of other cultures can bring the combined experiences of appreciation and practice within his understanding.

In those situations where the teacher finds student interest directed toward acquiring more comprehensive knowledge of art history, a course should be offered to fill that need.



The following suggestions are offered to guide the teacher's evaluation of student progress, and the student's interpretation of the course in its entirety. The needs and reactions of each class will differ to the extent that no single method can be satisfactory for every group. However, these objectives may be accomplished through a summary using the following points as a framework:

1. Has the student become aware of his capability for understanding and participating in art?
2. Has the student been made aware of the existing beauty in his everyday world? Has he also been made

to realize that his environment can be improved (architecture, housing, city-planning, freeways, etc.)?

3. Has the student been made to feel that art should be part of daily living?
4. Has the student developed an ability to evaluate good design in a practical functional sense so as to enable him to choose wisely the commercially made necessities?
5. Has the student developed an understanding that art, in its historic past as in the present, is an expression of the culture and is valueless if isolated from human need and development?

## Art History

### Objectives:

- Enrichment of the student's understanding of art in the environment.
- A knowledge of the different ways in which people have expressed themselves through art.
- An understanding of how today's art relates to the art of the past.
- The realization that there are qualities common to all great art.

### Visual Resources:

Art history books	Reproductions of
Films	paintings, sculpture,
Film strips	and prints
Color slides	Original works of art
Artifacts	Periodicals and magazines

### Study and Discuss:

Main trends in the history of painting and sculpture.  
 Contemporary painting and sculpture.  
 Work of local artists.

### Visit:

Galleries	Print shops	Theatrical
Museums	Public	productions
Current	buildings	Local
exhibits	Art fairs	monuments

### Activities for Students:

Research and oral reports.  
 Arranging exhibits and bulletin boards.  
 Notebooks and scrapbooks.  
 Correlation with daily work.

### Suggested Research and Studies:

Study of the unique achievement of Michelangelo in relationship to the human figure.  
 Study of the precise draftsmanship of Ingres.

Study of the spirited style of Delacroix.

Study of the emotional distortion of El Greco.

Study of the fantasy drawings of Klee.

Study of the commentary of Toulouse-Lautrec.

Study of the line drawings of Picasso and Matisse.

### References:

*Painting and Reality*, Gilson: Meridian

*Arts and the Man*, Irwin Edman; Norton, Inc.

*Problems of Art*, Suzanne Langer; Scribner

*Conversations with Artist*, Rodman: Capricorn Books

*Sight and Insight*, Alexander Eliot; Dutton

*Western Civilization*, Walther Kirchner; Barnes and Noble, Inc.

*Creativity in the Arts*, Vincent Thomas; Prentice Hall, Inc.

*The Necessity of Art*, Ernst Fischer; Pelican

*The Shape and Content*, Ben Shahn; Vintage

*Form and Function*, Horatio Greenough; University of California

*Notes of a Young Painter*, Hiram Williams; Spectrum

*The Search for Meaning*, Alfred Neumeyer; Spectrum

*Painting: Some Basic Principles*, Frederick Gore; Reinhold

*The Philosophy of Modern Art*, Herbert Read; Meridian

*Analytic of the Beautiful*, Kant; Bobbs, Merrill

*Aspects of Form*, Herbert Read; Indiana University

*Reason in Art*, George Santayana; Collier Books

*The Meaning of Art*, Herbert Read; Pelican

*Painting in the Twentieth Century*, Werner Haftmann; Praeger

*The Art of the Renaissance*, Peter and Linda Murray; Praeger

*A Concise History of Painting*, Michael Levey; Praeger

*The Pocket Dictionary of Art Terms*, Reginald G. Hagger; Hawthorne  
*Dictionary of American Artist*, Paul Cummings; Martins  
*Art and Civilization*, Bernard Meyers; McGraw-Hill  
*A New World History of Art*, Sheldon Chevey; Viking  
*Art Through the Ages*, Gardner; Crosby

*Encyclopedia of Painting*, Bernard S. Meyers; Crown Publishers, Inc.  
*History of Art*, H. W. Janson; Abrahams  
*The Picture History of Painting*, Janson; Abrahams  
*The Horizon Book of the Renaissance*; American Heritage Pub.

## Lettering

### Objectives:

- To develop skill, to learn a basic alphabet and to meet the student's need.
- An understanding of the meaning of communication and its historical development.
- An awareness of the importance of spacing and precision in lettering.
- The ability to make an alphabet.
- An awareness of the differences in letters made with the pen, brush, and chisel.

### Methods:

Simple alphabets.  
Variations on this alphabet by making changes in width and height of letters.  
Designing an alphabet.  
Using a brush and/or a pen and ink.

### Media:

Paper	Pen holder and various nibs
Ruler	(Speedball B and C)
India ink	Cut paper
Pencil	Speedball lettering charts
Lettering brush	Poster paint

### Suggested Projects:

Posters	All-over designs using letters
Poster layouts	Letterheads
Travel poster	Lettering for bulletin boards and displays
Folio covers	Lettering words, titles, sentences, paragraphs in various styles of pen
Magazine layouts	Package design
Directional signs for corridors	Illustration
Monograms	Cartooning
Three-dimensional signs	Labels
Record album cover	Brochures
Trademarks, insignias, motifs	Newspaper drawing
Coats of arms	Spot drawings
Story boards	Swimming pool advertisement
Book jackets	Soft drink advertisement
Booklet illustration	Industrial products and their design
Stage or musical poster	
Television commercials	
Commercials	

### Collect:

Samples of Gothic, Roman, Manuscript, Chancery, and other styles of alphabet cut from magazines and newspapers including contemporary lettering.

### Techniques:

1. Practice the formation, proportion, balance, and spacing of letters.
2. Demonstrate optical spacing and balance of words.
3. Show the formation of the letters in a basic alphabet by the elements they have in common.
4. Show basic strokes—vertical, horizontal, diagonal, and curved.
5. Transferring lettering from a layout to the final work.
6. Student should explore the possibilities of various medias to create special lettering effect.
7. Point out relationship of lettering style to the message it conveys. Learning to think of lettering as an integral part of the layout should include style, color, and legibility.

### Commercial Art Obligations:

Meeting the standards for reproduction.  
Meeting of deadlines



### **Commercial Assignments**

Commercial art often requires working to satisfy the tastes and the whims of someone else, frequently someone who has no art experience. This could be a unique experience for the student. Many will not like this replacement of his will; others will fail to grasp the necessity of meeting a deadline—but many will find these commercial assignments rewarding. Recommended for a selected group in II, III, and IV year art students.

### **Materials:**

**Tools**  
Pencils  
Pens and inks  
Brushes  
Air brush  
Triangles  
Mat knife  
Scissors  
Silk screening equipment  
Drawing board

**Media**  
Paper  
Illustration board  
Water color paper  
Pastel paper  
Coquille paper  
Tempera  
Caseins  
Pastels  
Masking tape  
Rubber cement  
Construction paper

## **Lettering and Layout Design**

### **Concepts:**

Importance of satire, impact, and cartoons  
Advertising attracting public response  
Knowledge of lettering forms  
Appropriate selection  
Use of spatial relationships  
Dummy construction  
Rough layout  
Finished layout for any advertisement  
Beauty of design  
Working for reproduction  
a. Line cut process  
b. Half-tone process  
c. Color process and breakdown

### **Stress:**

Skill and use of tools  
Composition  
Harmonies of line, form, texture value and color  
Individuality of expression  
Importance of simplicity  
Artist's relationship to merchandise and product

### **References:**

*Posters*, Howard Boughner; Pitman  
*The Book of Signs*, Rudolf Koch; Dover  
*The History and Technique of Lettering*, Alexander Nesbitt; Dover



*Speedball Textbook*, Ross F. George; C. Howard Hunt  
*Lettering*, Higgings; Ink, Inc.  
*Techniques*, Higgings; Ink, Inc.  
*Art Today*, Faulkner, Ziegfeld; Hill  
*Lettering*, Harry E. Wright; Pitman Pub. Corp.  
*Lettering-Art in Modern Use*, Raymond Ballinger; Reinhold  
*Layout*, Raymond Ballinger; Reinhold  
*Signatures and Trademarks*, Rand Holub; Watson-Guptill  
*Lettering*, John Cataldo; Davis

## **Interior Design**

### **Objectives:**

- An understanding that it is necessary to know the rules for beauty and how to use them in order to have an attractive home.
- An increasing ability to plan and coordinate furniture, equipment, drapery and chair covering patterns, floor and wall covering in a room.
- The development of intelligent home planning and consumer buying

### **Suggested Projects:**

Floor plans  
Color schemes and harmonies  
Furniture arrangements  
Picture hanging

### **Collect:**

Pictures of wall arrangements, furniture, garden arrangements, houses, pieces of wallpaper, and any

other material which can be discussed and criticized for art quality.

**Design:**

Your own room as you would like it.  
Print material for draperies, pillows, or upholstery.  
Weave place mats, rugs, or table runners.  
Wallpaper for your own room.  
Make a scale model of a one-room studio apartment.  
An interior decorator's studio

**Visit:**

An interior decorator's studio  
Local furniture stores  
Museums

**References:**

*Guide to Interior Decorating*, Betty Pepis; Reinhold  
*Designs for Living*, Ford and Creighton; Reinhold

**Fashion Drawing:**

Current and future fashions

**Drawing from Memory:**

Summer experiences  
School and social activities

**Nature Drawing:**

Observing designs and patterns of nature in objects such as cones, sea shells, flowers, leaves.

**Contour Drawing:**

Figure, still life, etc.

**Cartooning:**

Sports  
Spot  
Editorial or political  
Strip

**Perspective Drawing:**

Parallel  
Angular  
Three point perspective  
Ellipses

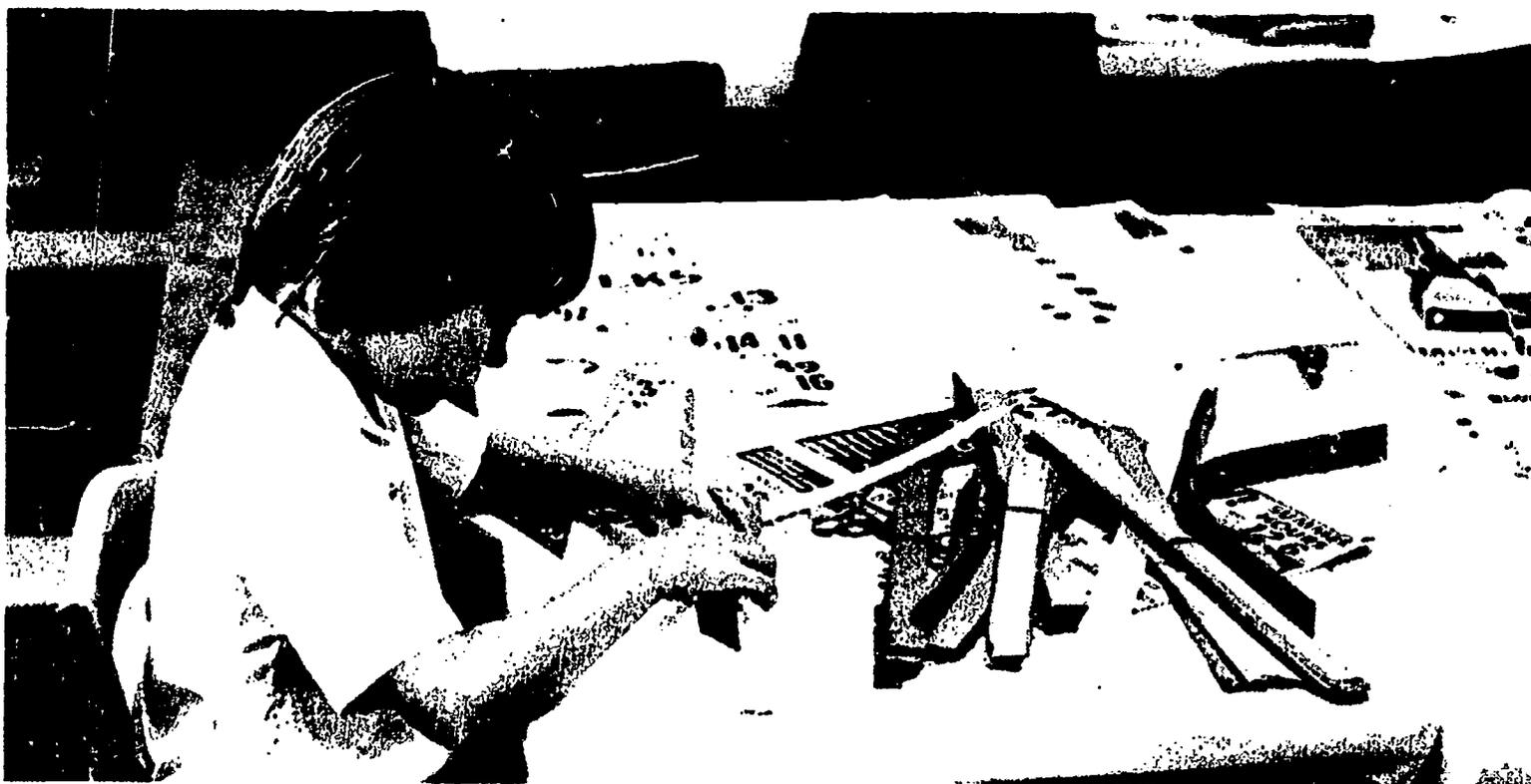
**Abstract, Geometric, Free Form Design:**

Figures and still life  
Accidental shapes for inspiration

**Clusters or Grouping:**

Figures  
Homes and additions

## Design



**Objectives:**

- To develop perception and imagination through varied experiences.
- To acquaint the student with volume.
- To develop specialized skills and techniques based on the student's knowledge of design fundamentals.

- To develop a creative attitude toward the use of materials and techniques in solving problems of design.
- To broaden his attitudes, knowledge, and skills in relationship to other areas where design is essentially important.

**Concepts:**

Make the student aware of his design as it exists in nature and man-made objects.

Two-dimensional designs.

Three-dimensional designs.

**Stress:**

1. A design as it relates to two-dimensional pattern and surface enrichment.
2. A design as it relates to three-dimensional objects in space.
3. Relationship of elements to each other. Tension, movement, and spatial interpretation develop as elements are related to each other and to the picture-plane.
4. A student should be aware of design as it exists in nature and man-made objects.
5. Some writing forms suggest linear motifs: Calligraphy, pictographs, and hieroglyphics.
6. Geometric shapes and solids used to develop abstract and non-objective motifs.
7. Achieve visual interest.
  - a. Positive-negative reversal of values.
  - b. Shifted image superimposed on a color shape.
  - c. Transparency of superimposed shapes.
  - d. Pluralism—one contour line common to several shapes.
  - e. Fluctuating image—observer's attention alternates between figure and background.
8. Characteristic of volumes.

**Suggested Projects:**

Geometric Design—

Lines, circles, rectangles, triangles

Imaginative designs from memory—

Abstraction, scribbles which lead to exploration and discovery

Studies from nature—

Organic

Inorganic

Figurative designs—

Animals

Groups

Design from other cultures—

Africa, China, Mexico, Italy, etc.

Useful designs—

Industrial design, fashion, interior, commercial design, package, etc.

Graphic design—

Posters, signs, trademarks, symbols, greeting cards, book covers, wrapping paper, stencils, silk screen, block prints, repeat designs, border designs, textiles.

**References:**

*Design for You*, Beitler-Lockhard; Wiley and Sons

*Basic Design*, Kenneth Bates; World Company

*Nature as Designer*, Bager; Reinhold

*Design in Three*, Randall and Haines; Davis

*Craft Design*, Mosley, Johnson, Koenig; Wadsworth Publishing Co.

*Vision in Motion*, Moholy; Nagy

*Design*, Sybil Emerson

*Primer of Visual Art*, Mundt

*Thoughts on Design*, Paul Rand

*Crafts Design*, Mosley, Johnson, Koenig; Wadsworth Publishing Co.

*Designs for Artists and Craftsmen*, Louis Wolchonok; Dover

*The Art of Three-Dimensional Design*, Louis Wolchonok; Harper Publishers

**Mural Design**



**Methods:**

Various techniques of mural making such as wall paintings, fresco, reliefs, friezes, etc.

1. Working together and exchanging ideas.
2. Need for careful planning and research.
3. Care of and understanding of materials.
4. Knowledge of great mural painters from Mexico, Italy, France, etc.
5. Knowledge of projecting techniques.

**Suggested Projects:**

Murals of historic significance. (Civil War, etc.)

Murals of scientific significance. (Biology, Space.)

Murals of aesthetic significance. (Abstracts, Stylization.)

Murals of literary significance. (Shakespeare, Stories.)

Circus

Humor

Sea

Satire

Travel  
Transportation  
Fantasy  
Inventions  
Family of Man

Medicine  
Music  
Sports  
Education

**Materials:**

**Tools**  
Brushes  
Scissors

**Media**  
Paints  
Charcoal  
Pencil  
Glue  
Tile  
Glass  
Fabric  
Wood panel  
Brown Kraft paper  
White butcher paper  
Construction paper

**Procedure:**

This project is usually the work of many students, but it can be also a good long-range assignment for an individual. Selecting an appropriate topic is often of

utmost importance. Before any sketches are made, careful research should be done. Ideas, inspired from many sources, may be written up. A great deal of correlation with other subjects usually takes place. Many preliminary studies, sketches, and color schemes are made before one is selected. A large, simple contour drawing or cartoon is made to actual size. The drawing is then transferred to the working surface. Tempera paints are usually used on paper murals and oil paints, enamels, fabrics, colored papers, and other materials used on more permanent surface. Large flat areas of texture and line may be added later. The mural must be viewed from a distance while working to see that all parts are harmoniously related.

**References:**

*Bulletin Boards and Display, 1961*, Randall and Haines; Davis Press, Worcester  
*Murals for Schools*, Arne Randall; Davis Press, Worcester

**Collage**

**Media:**

Colored papers  
Newspaper  
Magazines  
Yarn  
Wire  
String  
Cork  
Plaster  
Ink  
Paints

Chalk  
Pencil  
Corrugated cardboard  
Fabric  
Copper  
Sandpaper  
Wood  
Paste  
Scissors

**Method:**

Select a variety of interesting materials, some new, others old, rusty, burned, or discarded objects. Select the materials that are especially exciting for each individual. Look for color harmony, textural contrasts, unusual shapes, and a variety of values. Begin by cutting, tearing, and arranging materials on a heavy cardboard backing. When the arrangement seems satisfactory, the various pieces can be glued to the backing. The design should have a center of interest, a mood, or suggest a message. The design can be enhanced by painting out certain areas or adding photographs, letters, or other objects to the arrangement. The student may draw over parts of the collage or glaze sections of it and should use his imagination and ingenuity to arrive at a highly individual result.

**Concepts:**

Art exists all around us in many forms.  
Selections of appropriate material to create their own designs.  
Variety plays a major role in design.

Line, color, texture, form, and values.

Harmony, proportion, contrast, rhythm, dominance, and balance.

Common materials can be made into works of art.

**References:**

*Collages*, John Lynch; Viking Press.  
*Collages*, Harriet Janis and Rudi Blash; Chilton Company.  
*Collages and Constructions*, Lois Lord; David Publishers.  
*Collages*, Francis Brow; Pitman.

**Objectives:**

- An awareness of the history of collage and its current revival.
- The ability to assemble varied materials with the limitations of good taste.
- The understanding that art can be made from "found objects."

**Materials:**

**Tools**  
Scissors  
Razor blades  
Straight pins

**Media**  
Photographs  
Buttons  
Cloth  
Feathers  
Plastic  
Wood  
Paint  
Yarn and string  
Cardboard scraps  
Rubber cement  
Paper  
Labels  
Tickets

### ***Suggested Projects:***

Book jackets  
Record album covers  
Posters  
Collages combining different textures and media

### ***Study and Discuss:***

Collages of Braque and Picasso

Dadaists  
Esteban Vicente  
John Lynch  
Matisse  
Marca-Relli

### ***Visit:***

Museums and galleries to see examples of collages.

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## **Fold and Dye**

### ***Objective:***

● Study of the methods of folding and dipping papers.

### ***Media:***

Paper, newsprint, tissue, paper towels  
Color media—water color, thinned tempera, colored ink

Brushes  
Containers for paints

### ***Suggested Projects:***

Wrapping papers  
Book covers  
Portfolio covers  
Stationery

## **Decorated Papers**

### ***Objectives:***

● Understanding of various materials for printing.  
● Various techniques for cutting and the mechanics of repeat patterns.

### ***Materials:***

#### ***Tools***

Knives  
Razor blades  
Brayer  
Sponges  
Spools  
Wood block  
Artgum  
Vegetables  
Pans

#### ***Media***

Poster paint  
Watercolor  
Ink or dye

#### ***Vehicle***

Paper—all kinds

### ***Suggested Projects:***

Book cover designs  
All over design  
Greeting cards  
Decorated wrapping paper

## **Paper**

### ***Emphasis:***

To encourage an appreciation of the history of paper and its wide commercial uses. To stimulate an interest in the versatility of paper as an expressive art medium and to gain experience in the manipulation and use of the material.

### ***Suggested Projects:***

Decorated paper	Stenciling
Fold and dye	Collage
Paper sculpture	Batik
Papier maché	Tie dyeing
Wax resist	

### ***References:***

*Crafts, Design*, Mosley, Johnson, Koenig  
*Design in Three-Dimensions*, Randall and Haines  
*Arts and Crafts*, Wankelman, Richards, Wigg  
*Teachers Craft Manual*, Bryce and Green  
*Cut Paper Work*, Christabel Russell Cox  
*Paper Sculpture*, Arthur Sadler  
*Paper Folding*, William Murray, Francis J. Ridgway  
*Paper Sculptures*, Mary Grace Johnston  
*Adventures with Scissors*, Edith Becker; International Textbook Company  
*Exploring Papier Maché*, Victoria Bedford Betts; Davis Publishing Co.  
*Creative Paper Design*, Rottger; Reinhold

## Two-Dimensional Art

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### *Drawing:*

Good drawing is one of the artist's basic tools. It is the result of keen observation and ability developed through practice in representing that which is seen or felt. The artist expresses, intensifies, or clarifies through the use of fundamental elements of art (line, texture, and form). The artist may at times draw to represent factual characteristics and details or conversely may develop the abstract and the emotional.

### *Media:*

Pencils—Colored, charcoal, hard and soft lead

Pens—Ballpoint, croquil, speedball

Charcoal

Crayons—Wolfe crayon, lithograph crayon, Conté crayon

Brushes—Watercolor, Japanese, stencil, bristle, lettering

Magic markers

Pastels

Variety of papers

### *Drawing Experiences and Drawing from Observation:*

Simple inanimate object

Group of objects

Models—

Standing figure

Studies

Action drawings

Seated (foreshortening)

Likenesses

Heads

Hands

### *Materials:*

#### *Tools*

Brushes

Pens

Silk screen

#### *Media*

Paper

Inks

String

Textiles

Wire

Charcoal

Clay

Glass

Paints

Crayons

Pencils

Block printing

Wood

Pastel

Plaster

Stencils

### *Procedure:*

Limit the problem. Have students use one element to form a design rather than to try to include many. For



example, the rectangle may be the simple element to be used. Much experimentation will follow as to sizes, shape, movement, balance, and composition. When a successful arrangement is attained, another element such as color or texture may be added. Addition or subtraction of elements can be included. This process can continue until a most complete use of all elements is achieved.

### *Stress:*

The organization of the basic elements (line, form, texture, value, and color) into a pleasing arrangement. The understanding of the elements of composition (harmony, rhythm, proportion, dominances, contrast, balance, unity, and order).

### *Methods:*

Repeat patterns

Accents

Transparency, reflections

Overlapping

Contrasts

Distortion, stylization, exaggeration

Balance, formal, informal arrangement

Limitation of color schemes

Movements of line

Alteration

Limitation of size, shape

## Stenciling

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### Objectives:

- To understand relationships of stenciling to the industry of textile designing.
- To gain knowledge about one of the more common methods of duplicating.
- To explore the possibilities of stenciling (using both positive and negative methods.)
- To enhance fabric for some functional purpose.



### Concepts:

- Color study—effect of mixtures, shading, etc.
- Planning design (simplicity)
- Amount of paint to be used—for brush—for spraying
- Cutting stencils
- Cleaning (brushes, stencils, etc.)
- Finishing—heat application on fabrics to make paint permanent.

### Suggested Projects:

- |               |                 |
|---------------|-----------------|
| Fabrics—      | Greeting cards  |
| Wall hangings | Wrapping paper  |
| Place mats    | Stationery      |
| Table cloths  | Book covers     |
| Skirts        | Borders—frames— |
| Scarves       | mirrors, etc.   |
| Runners       |                 |

### Objectives:

- Printing by using stencils can be used to emphasize the principals of good design and composition.
- Enables students to appreciate the techniques employed and to gain skill in using them.

### Method:

The design is cut from any heavy paper and glued lightly on the side of the silk that will be next to the paper. If you use a washable paint, the screen and frame can be used over and over for many different stencils. A frame made from an embroidery hoop and ordandy can be used.

Cut a rectangle of any heavy cardboard the same width as your silk to use as a "squeegee." Tempera, poster or any other kind of paint should be placed at one end of the frame. The paint should be of heavy cream consistency. With the cardboard pull the paint smoothly and slowly over the silk. Lift the frame and clean the silk.

### Materials:

- |                           |                       |
|---------------------------|-----------------------|
| Stencil paper             | Spray gun             |
| Stencil knives            | Textile paints        |
| Inks or paint (water/oil) | Heavy paper           |
| Fabric                    | Glue                  |
| Thumb tacks               | Thinner               |
| Extender                  | Tempera               |
| Cardboard                 | Backing for attaching |
| Stencil brushes           | fabric                |

## Tempera Batik

### Objectives:

- The importance of careful planning to produce successful results.
- The importance of contrast in value, texture, color, size, and forms.
- Allow for unexpected results and use them advantageously.

### Materials:

- |              |              |
|--------------|--------------|
| <b>Tools</b> | <b>Media</b> |
| Brushes      | Tempera      |
| Large tray   | Paper        |
|              | Ink          |

### Method:

Select an interesting subject—landscape, figures, animals, abstract, etc.

The important differences between the batik method and a regular tempera painting is that the black ink is painted over the finished tempera painting and then submerged under water. The result will create a fascinating textural effect and a very spontaneous result.

It is good planning not to cover all the white paper with paint, but to leave spaces around the colored areas. Emphasize the use of bright or light colors in contrast with the black ink. The ink will adhere to the unpainted areas but will wash off the colored ones. Wait until the ink is dry before submerging the paper in water so that the colors will remain intense and will not wash out. Some touching up can be done with pen and ink or brush and paint, if necessary.

## Batik

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### Objectives:

- An understanding of the batik process and the ability to decorate a fabric using it.
- A knowledge of the origin of batik and the strong influence it has had on textile design.
- An increasing ability to make use of the fluid nature of the design possible with this technique.

### Materials:

#### Tools

Brushes  
Hot plate  
Sketching frame  
Granite pans  
Wooden spoon  
Iron  
Ironing board

#### Media

Beeswax  
Paraffin  
Tjan-tung  
Newspaper  
Cold water dye  
Fabric  
Muslin  
Silk pongee  
Cotton batiste  
Handkerchief linen

### Study and Discuss:

Japanese method of batik

### Suggested Projects:

Table mats  
Tray cloths  
Wall hangings in combination with a block print  
Book covers  
Head scarfs  
Ties

### References:

*Introducing Batik*, Evelyn Samuel; Watson-Guptill  
*Creative Textile Design*, Rolf Hartung; Reinhold  
*More Creative Textile Design*, Rolf Hartung; Reinhold  
*Design on Fabrics*, Meda Johnston, Glen Kaufman; Reinhold  
*Batik: Art and Craft*, Nik Krevitsky; Reinhold  
*Textile Printing and Dyeing*, Nora Proud; Reinhold  
*Fabric Printing by Hand*, Stephen Russ; Watson-Guptill

## Tie-Dyeing

### Objectives:

- The ability to hand-decorate a fabric using this technique.
- An appreciation for good craftsmanship.

### Experiment with:

The three varieties of tie-dye pattern—

Rosette  
Broad stripe  
Fine repeat

### Materials:

#### Tools

Wooden stirring stick  
Hot plate  
Glass container  
for dyeing

Several weights of thread,  
twine and cord

Boilable dye

Fabric

Silk, silk chiffon,  
georgette, percale,  
muslin, handkerchief  
linen, batiste, soft  
viscose rayon

### Suggested Projects:

Dress material  
Luncheon cloths  
Wall hangings  
Tie-dyeing with a print  
Tie-dyeing with a drawing (magic marker)

## Wax and Resist Processes

### (Tie-dyeing and Batik)

### Objectives:

- To gain understanding and appreciation of color and design in hand-dyed fabrics.
- To learn to enhance fabric by the use of dyeing and to learn about this art which was developed in India in ancient times.

- To approximate in the classroom the Japanese method of Batik.
- To study the history of fabric dyeing from the time of the Egyptians to the present.

### *Materials:*

#### *Tools*

Frame  
Iron  
Hot plate  
Container for wax  
Dye container

#### *Media*

Lightweight fabric  
Beeswax  
Paraffin  
Japanese brushes  
String  
Dyes

Experiments—Batik sample

Tie-dyeing sample

### *Suggested Projects:*

Dyed material for

Skirts

Blouses

Scarfs

Handkerchiefs

Runners

Wall hangings

Combination of Batik and block print

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### *Concepts:*

How to make a planned or unplanned design  
Effect of colors on each other when being dyed  
Safety factors (hot wax)

## **Wax Resist**

### *Objective:*

- A study of color and design techniques and characteristics and reactions of wax with water.

### *Materials:*

#### *Tools*

Brushes

#### *Media*

Crayons  
Paraffin  
Beeswax  
Liquid floor wax  
Water color paint  
Thinned poster paint

### *Suggested Projects:*

All over designs

Landscapes

Still life

Human figure

## **Block Printing**

### *Objectives:*

- Various methods of printing.
- Realization that many results may be derived from one design.
- Commercial printing processes.

### *Materials:*

#### *Tools*

Cutting tools  
Brayer

#### *Media*

Linoleum roll  
Linoleum blocks  
Printing inks  
Water soluble, oil base  
Papers  
Cloth  
Plaster blocks



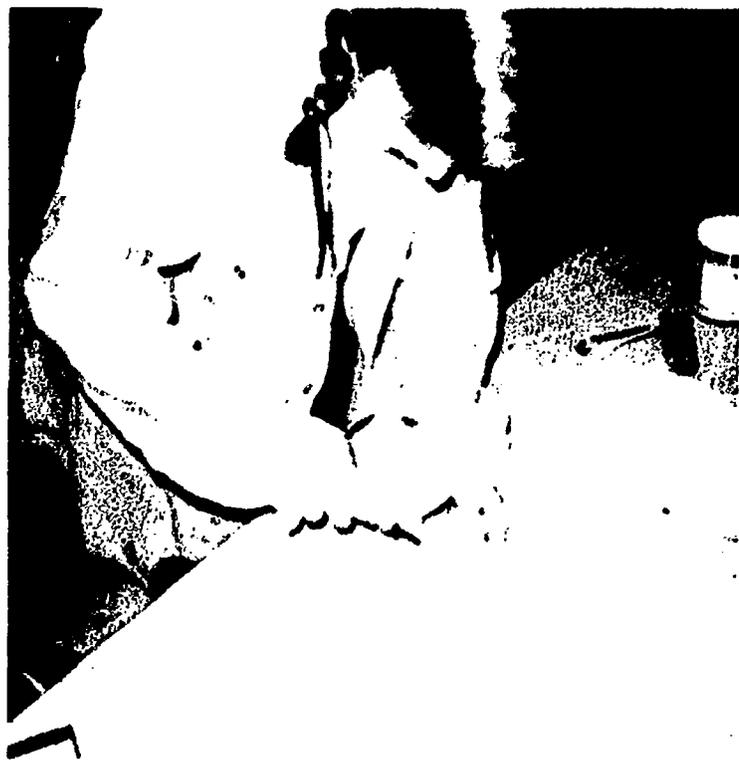
### *Method:*

Make preliminary designs on paper. The free-brush technique is very good. Design factors involved in creating repeat motifs, all over patterns, geometric designs, non-objective designs, border designs, etc., should be stressed. Design is then transferred from paper to linoleum by tracing technique. Design must be reversed so that it will not print backwards which is especially important to a design with lettering. The design is then carefully cut out with different cutting tools to create a variety of lines, textures, and shapes. The need for safety in cutting must be emphasized.

Additional blocks may be used when more than one color is desired. Care should be taken in applying the ink with the brayer so that the proper amount is achieved to prevent bare spots or too much ink from filling in small lines of the design. Colored papers can be used for interesting effect. Overlapping areas of the design may produce unusual effects. The emphasis throughout should be placed upon the development of the student's personal expression and the quality of the independent thinking used in solving design problems and techniques.

# Printmaking

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## Materials:

**Wood Cut Prints**—Wood (pine, redwood), cutting tools, printing equipment, paper, inks.

**Silk Screen Prints**—Frames, screen of organdy or silk, silk screen inks, film, adhering solution, stencil knife, tusche, tape, shellac, lacquer, thinner, squeegees, Le-Page glue, brushes, cotton, cloth or paper to print on.

**Plaster Block Prints**—Plaster of Paris, vaseline, shellac, molding box, printing inks, container for pouring the plaster and water mixture, sharp tool, brayer, palette, paper, and printing inks.

**Acetate Prints**—Sheet of acetate, sharp tool, brayer, ink, palette, cleaning cloth, paper to print on.

**Eraser and Rubber Tubing Prints**—Erasers, strips of rubber tubing, standard printing equipment and wood blocks, glue.

## Suggested Projects:

- Wrapping paper
- Greeting cards
- Posters
- Lining paper for book-binding
- Textile designs (border and all over patterns)
- Wallpaper designs
- Book covers
- Book plates
- Fine art prints

## Visit:

Galleries, studios, and print shops  
See how colors are separated and color plates are made

## Collect:

Samples of various methods of printing such as etching, lithography, and monoprinting.

# Relief Printing

## Objectives:

- To explore the possibilities of relief printing and to acquire knowledge of the tools and techniques involved.
- To learn that from this method many copies can be made of one print.
- To develop ideas into designs by planning so that they become meaningful statements.

## Materials:

### Tools

Lino cutters  
Wood cutting tools  
Brayers  
Palette (glass)

### Media

Linoleum  
Cardboard  
Glue  
Rubber  
Wax  
Inks (water or oil)  
Paints (water or oil)

Wood  
Vegetables  
String  
Plaster  
Printing press

## Concepts:

Experiments—  
Glue on glass  
String on wood  
Rubber  
Cardboard  
Plaster (incised)  
Use of tools for cutting (safety factors)  
Difference between positive and negative cuts  
Application of ink (amount)  
Pressure in printing  
Cleaning process  
Effectiveness of design for printing process used.

## Suggested Projects:

Fine art prints  
Portraits  
Landscapes  
Still lifes  
Monograms

Greeting cards  
Book covers  
Wrapping paper  
Wall hangings  
Book plates

## Printmaking

### *Objectives:*

- A knowledge of, and experience with, planographic, relief, and intaglio methods of printing.
- An awareness of the enhancing qualities of pattern in nature and man-made objects.
- A greater ability to appreciate commercial processes and the works of the graphic artist.

### *Suggested Techniques:*

*Stenciling*—Stencil paper, scissors, stencil knife, stencil brushes, water or textile paints, turpentine, paper or cloth, palette for mixing.

*Monoprints*—Inks, glass plate, paper (plain or colored), cloths for wiping.

*Wax Prints*—Wax (candle ends, wax crayons, paraffin), sharp tool for incising on wax, cardboard box for wax, brayer, ink, palette, and paper.

*Cardboard Prints*—Cardboard, scissors, printing paper, shellac, brushes, ink (block printing), cleaning fluid, cheesecloth.

*Leaf Prints*—Carbon paper, newsprint and colored papers, all types of leaves, pine needles, ferns, grasses, etc., iron (electric).

*Vegetable and Gadget Prints*—Miscellaneous household gadgets, potatoes, squash, and other vegetables, printing ink or tempera colors, sharp tool, brushes, paper.

*Clay Print*—Modeling clay, pointed stick, rubber brayer or paint pad, inks, newspapers.

*Linoleum Block Prints*—Block printing inks, linoleum blocks, brayer, palette, linoleum cutting tools, press.

## Experimental Printing

### *Objectives:*

- To explore objects and their ability to leave an impression.
- To see everyday objects in a new way—as useful materials and tools to produce art forms.
- To realize that many experimental prints will be unique by the very nature of the process involved.
- To explore the varied processes and procedures involved in printmaking.

### *Materials:*

<i>Tools</i>	<i>Media</i>	
Palette (glass)	Leaves	Grasses
Brayers	Bark	Stones
Printing press optional	Pennies	Scrap cloth
	Scrap yarns	String
	Sponge	Straw
	Inks (water or oil)	Cardboard

### *Emphasis:*

#### Experiments—

Object prints using hands, fingers, etc.

To use man-made objects such as string, yarn, sponges, erasers, etc.

To use objects from nature such as grasses, twigs, leaves, etc.

Have each person make a monoprint.

Explore as many different methods as possible.

Amount of ink.

Amount of pressure.

### *Suggested Projects:*

Monoprints

Repeat patterns for wrapping paper and book covers

Fine art prints

Textile prints

Book marks

## Monoprint

### *Objective:*

- An original printing process that allows a good study of pictorial composition.

### *Media:*

Artist's oil paints

Printer's ink

Tempera

Print block (glass, metal, or masonite)

Turpentine for thinning

Soft printing paper

### *Method:*

The design is painted on a piece of glass and the print is transferred to the paper. The original painting, however, is not destroyed.

## Etching or Intaglio

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### *Objectives:*

- To explore the possibilities of etching.
- To acquire skill in the techniques involved.
- Planning good composition.

### *Materials:*

#### *Tools*

Hand tools  
Rags  
Glass trays  
Printing press

#### *Media*

Copper plate  
Ink  
Paper  
Silver point  
Acids

### *Method:*

An image is cut into a plate with hand tools and acids. Ink is spread onto the plate so that it fills the lines etched below the surface. It is then wiped off the surface.

Place dampened paper on the copper plate and then run both plate and paper through a press that has rollers. The press pressure forces the damp paper into the etched lines thus soaking up the ink.

## Intaglio Printing

### *Objectives:*

- The relation of color harmonies.
- Importance of direction of movement.
- Use of variety.
- Effectiveness of transparency in achieving an aura of mystery.

### *Materials:*

#### *Tools*

Brushes  
Knives

#### *Media*

Crayons  
Acrylic paints  
Tissue

#### *Papers*

Oak tag  
Light board  
Hard finish

### *Method:*

Apply successive layers of crayon working from light to dark and crossing in different directions. Rubbing with tissue and engraving with a sharp instrument will produce line, texture, and pattern. A finish can be achieved by using a solution of diluted acrylic paints. This solution flows into the etched areas creating accents. Wherever the paint is applied over the crayon, it produces an illusion of transparency.

## Lithography

### *Objectives:*

- A study in the history of lithography.
- A good study of design.
- Emphasis of line importance in a composition.

### *Media:*

Wax lithograph crayon (tusche)  
Heavy slab of porous stone  
Water  
Ink  
Lithograph press  
Printing paper

### *Method:*

A lithographer uses a special wax, lithograph crayon, or liquid called tusche. He draws his design on a heavy slab of porous stone and the wax actually fills in the pores of the stone. When the entire surface is wiped with water, the non-waxed areas absorb the water. Then the ink adheres only to the pores that have the wax drawing. Printing is accomplished with a very heavy, specially designed lithograph press.

## Graphic Arts

### *Printing Processes:*

Relief—wood, linoleum, cardboard, plaster  
Intaglio—engraving, etching, lithography, dry point, cello-prints  
Surface—silk screen, stencil, monoprint  
Mixed processes—experimental

### *Concepts:*

Use and appreciation of techniques including the principles of good composition.

### *Suggested Activities:*

Illustrative prints as nature works of art on a level with other art forms.

Illustrative material—books for Children's Hospital, school, and community activities.

A unit or repeat design for use on cards, cloth, wrapping papers.

**Background and Appreciation:**

Consideration of techniques and styles of great prints as mentioned in group discussion with greater emphasis on the more mature application of these skills to classroom projects.

**Historic**  
Durer  
Eli Wallach  
Hokusai

**Modern**  
Helen Haselt  
Ruth Reeves  
Eli Wallach  
Frascon  
Baskin

**Surface**  
Daumier  
George Bellows  
Renault  
Toulouse-Lautrec

**Intaglio**  
Rembrandt  
John Taylor Arms  
Whistler  
Goya  
Blake  
Mayeter

**Silk Screen Printing**

**Objectives:**

- To become familiar with the history of silk screen printing.
- To gain knowledge and understanding of the equipment and materials used for this process of printing.
- To become associated with the versatility of silk screening and its wide use commercially.
- To apply this knowledge to make useful as well as decorative projects.

**Materials:**

<b>Tools</b>	<b>Media</b>	<b>Cloth</b>
Frames	Organdy or silk	Adhering liquid
Film cutters	Inks (oil or water)	Tape (masking)
Squeegees	Film	Lacquer
	Thinner	Wax crayons
	Glue	Squeegees
	Sponge	Paper

**Concepts:**

- Suitable design
- How to transfer designs
- How to cut film
- Setting up a frame (stretching material, etc.)
- Adhering film to screen
- Masking
- Preparation of paper or fabric to be printed on
- Printing (more than one color)
- Cleaning
- Experiments—
  - Glue and tusche
  - Wax crayons
  - Sponge
  - Paper (torn) (adhering other subjects to screen)

**Suggested Projects:**

Fine art prints	Book plates
Stationery	Insignia
Textiles	Posters

Greeting cards  
Emblems

Wall hangings  
Signs

**References:**

- Silk Screen Print Making*, Harry Shokler; Tudor Publishers
- Screen Process Printing*, Will Clemence; Blandford Press
- Silk Screen Techniques*, T. I. Biegeleisen and Max Coln; Dover Publishers
- Exploring the Graphic Arts*, C. Van Norston Co.
- From Oil Stencils to Silk Screen*, Jessie Stephens; Charles Scribner's Sons
- Printmaking Today*, Jules Heller; Henry Holt and Co.

**Printing**

- New Creative Printmaking*, Peter Green; Watson-Guptill
- Crafts Design*, Mosley, Johnson, Koenig; Wadsworth Publishers
- Arts and Crafts*, Wankelman, Richards, and Wigg; William C. Brown
- Teachers Craft Manual*, Mayo J. Bruce; Fearndon Publishers, San Francisco
- Printmaking*, Donna Z. Meilach; Pitman Publishers
- Fabric Printing by Hand*, Stephen Russ; Watson-Guptill
- Block Printing on Textiles*, Janet Erickson; Watson-Guptill
- Printmaking Today*, Jules Heller; Holt and Company

**Etching**

- The Technique of Etching and Engraving*, John Brunsdon; Reinhold

**Lithography**

- The Technique of Lithography*, Peter Weaver; Reinhold

**Objectives:**

- To learn about a new art form and its relationship to sculpture.
- To further the understanding of three-dimensional design.
- To study the effects of space and light as an integral part of a design.
- To use this information and relate it to balance, form, and color.
- Exploration and experimentation with a design that moves in space.
- Development of an organized design that is attractive in all positions.
- An appreciation of the craftsmanship involved in the making of mobiles.

**Materials:**

*Tools*

- Knives
- Metal shears
- Scissors
- Mat knife
- Brushes
- Pliers

*Media*

- |  |                  |
|--|------------------|
| Paint (tempera, acrylic)                 | Yarn             |
| Thread (nylon or mobile wire)            | Turpentine       |
| Plastic                                  | Cardboard        |
| Paint (oil or water)                     | Sheetmetal       |
| Papier Maché                             | Wood (balsa)     |
| 12-18 gauge wire                         | Plaster of Paris |
| Liquid solder                            | Glass            |
| Nylon thread                             | Miscellaneous—   |
| Glue                                     | Metallic papers  |
| Magazines                                | Pottery          |
| Paper (construction, tissue, news, etc.) | Aluminum         |
|  | Thin copper      |
|  | Cork             |
|  | Spools, etc.     |

**Concepts:**

- Understanding of balance (various kinds).
- Understanding ways of construction.
- Planning mobile according to location for balancing.
- Proper use of tools.
- Relationship of balance, form, color, to space and light.



**Suggested Projects:**

Mobiles using—

- Geometric forms
- Free forms
- Fish
- Animals

Mobiles with simple abstract cardboard or balsa wood shapes.

More complex mobiles of metal, glass and/or plastic using a definite theme.

A mobile of shapes within shapes.

Complete abstract constructions.

Interpretations in mobile form.

**Study and Discuss:**

Work of Alexander Calder

**Display:**

The mobiles around your school.

**References:**

- How to Make Mobiles*, John Lynch; Viking Press
- Making Mobiles*, Anne and Christopher Mooney; Watson-Guptill

## Paper Sculpture

**Objectives:**

- An awareness of paper and its potential.
- Experience with and exploration of paper's many possibilities.
- Excellent medium to study light and shade.
- Also the relationship of plane and form can be achieved rapidly.

**Materials:**

*Tools*

- Scissors
- Razor blades
- Rulers
- Stapler
- Punch
- Compass

*Media*

- Various papers and textures
- Tape
- Erasers
- Rubber cement

**References:**

*Adventure with Scissors and Paper*, International Textbook  
*Creating with Paper*, Pauline Johnson  
*Design in Three Dimensions*, Randall and Haines

*Crafts, Designs*, Mosley, Johnson, Koenig  
*Making Mobiles*, Watson-Guptill  
*Paper Sculpture*, Mary Grace Johnston  
*Paper Folding*, William D. Murray, Francis J. Rigney

**Papier Mache**

**Objectives:**

- Study of the history of papier maché, its origin, and top-making in various countries.
- The study of maché will be an excellent introduction for studying form, color, texture, and three-dimension.
- Study of three processes of making papier maché.

**Suggested Projects:**

Mask making  
 Three-dimensional sculpture

**References:**

*Masks*, W. T. Benda  
*Crafts for Fun*, Evadna Perry  
*Crafts Design*, Mosley, Johnson, Koenig  
*Teacher's Craft Manual*, Mayo J. Bruce, Harry B. Green  
*Exploring Papier Maché*, Victoria B. Betts; Davis Publications

**Three-Dimensional Papier Mache**

**Objectives:**

- The study of form, color, line, and texture in three-dimension.
- A study of the three processes of making papier maché structures.
  - a. It may be modeled like clay.
  - b. It can be used over a frame.
  - c. May be pressed into a mold.

**Media:**

Newspapers  
 Paper towels  
 Wallpaper paste  
 Objects on which to build forms—
 

1. Bottles
2. Boxes
3. Fruits
4. Balloons

**Method:**

1. *Paper pulp method*—Tear paper into small pieces and place in pan. Cover with hot water and soak for several hours. When the pulp is broken down and water squeezed out, paste or glue is added. It can then be modeled like clay or added to newspaper forms.
2. *Paper strip method*—Tear paper into strips. Dip the strips in the paste mixture and then apply to the desired form.
3. *Press mold method*—Either strips or pulp may be used. A ready made form, such as a bowl or tray can be used. Just grease inside with vaseline or cold cream to prevent adhering to sides. Build up desired thickness with maché. Dry. Remove and decorate.

**Suggested Projects:**

Human figures	Animals	Trays
Birds	Bowls	Free form

**Three-Dimensional Art**

This area, one of tremendous scope, will include: Model making, sculpture, stabiles, mobiles, and all three-dimensional art forms not specifically included in our crafts section.

**Sculpture:**

Sculpture provides a fine example of the continuity of the art program. On the elementary level, youngsters are given the opportunity to use modeling clay and to create highly imaginative and expressive forms often in a primitive but uninhibited way, manipulating and exploring, then joining and making these objects stand.



By junior high, these models will be carried further and brought into a more permanent form with a greater degree of refinement.

In the high school art program, sculpture is expanded through subject matter, structure, research, and methods of casting in more permanent material. The student who is able to combine the aesthetic with the skills and knowledge of intricate casting may produce a work of art and can credit this accomplishment to a continuing art education.

The art teacher must impress upon the student the importance of rhythm and design in three dimensions. The sculpture will be viewed from countless angles and, therefore, it is imperative that this fact be considered. The finest sculptures have beauty, feeling, understanding, and rhythm from any vantage point.

*Materials:*

*Tools*

Knives  
Brushes

*Media*

Plasticine	Plaster of Paris
Newspapers	Soap
Sculp metal	Wood
Wire	Pariscraft
Paste	Styrofoam
Fabric	Chipboard
Stone	Common pins
Poster paints	Aluminum plates
Masking tape	Sieve
Mixing bowls	Lard
Liquid rubber	Toothpicks
Matchsticks	Straws
Paper	
Clay	



**Mask Making**

*Objectives:*

- An extension of portrait drawing using human features as a basis for exploring decorative design.
- The cultural significance of the mask in past and present civilizations.

*Materials:*

*Tools*

Scissors  
Brushes  
Knife  
Paste brushes

*Media*

Pencils	White drawing paper
Paper towels	Tempera
Modeling board	Plasticine (clay)
Wheat paste	Shellac
Masking tape	Acrylic

*Method:*

Have students make mask forms by building up the form on a board with plasticine or by building up wads of newspaper and securing in place with tape. In each method, after the form is ready, apply several layers of wet strips of paper without paste to keep maché from sticking. Then start applying strips of paper dipped in paste until desired thickness is achieved. After allowing to dry, remove mask from form and decorate.

**Crafts**

Crafts provide a stimulating outlet for the creative energies of the student. Experiences with new processes and materials are particularly interesting to the individual. His interest in acquiring new skills, and his need for finding status within his group becomes factors in motivations.

Crafts also fill a need for the student who feels incapable of individual expression in other forms of art. The three-dimensional reality of materials often overcomes this lack of confidence. Successful craft experiences develop an awareness that form, color, and design operate in areas other than painting and draw-

ing. Contact with three-dimensional design develops an ability to evaluate commercial products which he, as a consumer must learn to make.

A student may find as much satisfaction in crafts as in paintings or drawing. The tangible quality of craft material often releases creative expression in the most inhibited. Controlling the development of form and material brings about confidence and a sense of purposeful achievement. The value of this experience during the emotional stress and insecurity of adolescence is quickly recognized.

The student may be more responsive to aesthetic values in objects he considers to be practical. Design elements become more meaningful if presented in the form of an object made for the home or for personal use. It may be for the first time that the student is experiencing three-dimensional design. An outgrowth of this experience could be a keener interest in the form, color, and functional design of all objects about him.



## Silversmithing



Through creative experiences in metal craft the student will develop an awareness of beauty in man-made objects. A sense of satisfaction resulting from a personal expression in material will encourage participation in further creative activity. By emphasizing experimentation... the student may be encouraged to form original ideas, to develop independent thinking habits, and to solve his own problems arising from his work. He will develop respect for tools, materials, and the work of others. For those with special apti-

tudes, there is opportunity for growth in skills and techniques.

### Design

As an introduction to metal craft, a brief discussion of metal work, its historical significance, and development at various cultural levels may be stimulating. Illustrative or visual material, anecdotes, and good examples of professional and student work should be chosen carefully by the instructor. Some time should be spent discussing the properties of iron-ferrous metals and their reactions to treatment. Experience has shown that the student will progress more rapidly if a notebook is kept in which technical information and processes are available for reference. Good attitudes toward craftsmanship should be reflected in the proper care and use of tools.

### Techniques and Suggested Problems

Jewelry and larger metal work are developed together in this guide by listing suggested projects in the order of the technique involved. It is expected that the instructor will choose those experiences which will best fit the needs and interests of the student. The average student will complete five or six projects the first semester.

A useful glossary and discussion of tools and equipment can be found in *Jewelry Making* by Kenneth Winebrenner, pp. 79-88.

### First Project

#### *Techniques:*

Cutting (strips), filing (smoothness and textural effects), hammering, bending, folding, twisting, annealing, and pickling.

**Demonstrate:**

Each of the processes should be demonstrated in addition to the processes used for finishing, such as, emery cloth and steel wool finishing, buffing, and lacquering.

**Suggested Projects:**

1. Paper knife—discuss the weight, balance, size, and style. Bar stock in brass, hard copper, or bronze is the most useful, but 16 gauge sheet is suitable for this project.
2. Earrings—Wire and bits of metal, joined by wrapping and twisting, may incorporate either wood or stone.
3. Pins or pendant.—These may be made with the same type of materials as the earrings.
4. Bracelets, napkin rings.
5. Shallow trays or bowls—A sandbag or shallow form may be used for this project.

**Second Project**

**Techniques:**

Stake forming, sawing, soldering (soft and hard), and coloring.

**Demonstrate:**

Techniques of forming, using the jeweler's saw, soldering, forming, and etching should be demonstrated.

**Suggested Projects:**

1. Dish or bowl—a discussion of the suitability of shape and function is suggested. The student will find it advisable to draw a cross section view to determine shape and metal size.
2. Flat jewelry—tie clip, buckles, pins, brooch, earrings, cuff-links, pendant, or emblems. Pierced or applied design may be used in this problem. Some preliminary drawing or cut-paper work is helpful in planning a design.

**Third Project**

**Technique:**

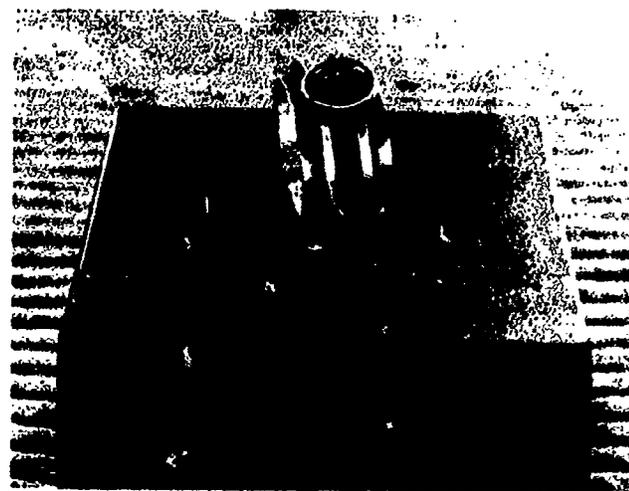
Ring shaping

**Demonstrate:**

The use of the ring mandrel should be demonstrated to familiarize the student with ring sizing, determining ring size, and fluting.

**Suggested Projects:**

1. Band ring—Applied decoration with wire, cut sheets, decorative drilling, and piercing may be tried.
2. Formed or shaped pieces—handles, foot, spout, or lid may be planned for a vase, planter, pitcher, or watering can. Decorative techniques may be included in the design.



**Fourth Project**

**Technique:**

Stone setting, bezel development, and seaming.

**Demonstrate:**

The use of the burnisher in bezel development, tap-setting, hinge construction, lap-seaming, dovetailing, and butt-soldering should be shown.

**Suggested Projects:**

1. Stone setting—ring, brooch, earrings, buckle, paper knife. The student should give careful consideration to the suitability of the design of the mounting as related to the stone and material being set.
2. Box form—planter, cigarette, or card box, silent butler, candy dish, or tray. The primary consideration regarding technique will be joining or lap-seaming, butt-soldering, fitting the bottom, and lid-hinging.

**Fifth Project**

**Technique:**

Link forming and gang soldering.

**Demonstrate:**

Chasing repoussé tools, and the use of the pitch block should be demonstrated.

**Suggested Projects:**

1. Chain and clasp construction.
2. Chasing and repoussé work on suitable projects. Careful planning of the design is necessary before working on the metal.

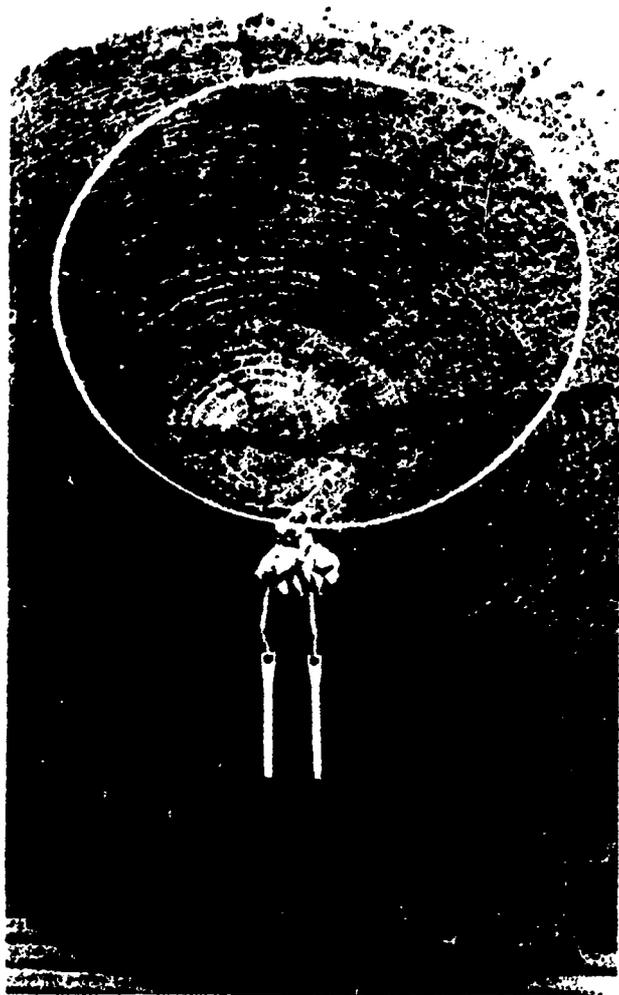
**Sixth Project**

**Technique:**

Hinge and catch construction  
Forging

**Demonstrate:**

Techniques of forging from bar stock, work hardening, tempering, and tube drawing should be demonstrated.



### *Suggested Projects:*

1. Miniature box construction.
2. Unit jewelry. Reproduction of identical parts to form a unified whole should be emphasized.
3. Handwrought flatware.

### *Suggested Activities:*

Mobiles, stabiles  
 Simple abstract metal sculpture forms  
 Simple forming of tray or bowl  
 Tie clips, pin, cuff links, pendants, etc.

### *Materials—Warehouse Item:*

Abrasive cloth: 80 grit, 120 grit, 180 grit  
 Ball peen hammers: 2 and 4 oz.  
 Bench vise, small  
 Brushes, small, for applying flux  
 Carborundum stone  
 C-clamps  
 Center punch  
 File cleaner  
 Files: flat, round, triangular, half-round in bastard, 2nd cut, mill cut, smooth 10"  
 Flux: resin  
 Hacksaw blades: 10", fine  
 Hacksaw, adjustable  
 Hand drills

Jewelers' saw frames 4"

Jewelers' saw frames 6"

Kerosene

Lacquer, clear, metal

Lacquer thinner

Mallets, boxwood (large)

Mallets, boxwood (small)

Metal snips, 6"

Metal snips, 12"

Pliers, 5" side cutter

Pumice or scouring compound

Sal ammoniac: cleaning and soldering irons

Scrub brushes, 4"

Scribers

Solder:  $\frac{1}{8}$  and  $\frac{1}{4}$

Soldering irons

Steel squares, 6" x 12"

Steel wool, medium and fine

Twist drills:  $\frac{3}{8}$ " to  $\frac{1}{2}$ "

Tripoli compound for buffing

White diamond compound for buffing

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### *Materials—Outside Purchase:*

Annealing tongs, 18"

Asbestos blocks, 6" x 3" x 1" (1" asbestos strip spiral wound)

Charcoal blocks, 6" x 3" x 1"

Bench pins, hardwood, 8" x 2" x  $\frac{3}{4}$ "

V-notch one end, use C-clamp to fasten to bench

Bezel mandrel

Bufs

Brass wire, 6"

Bristle wheels, 2", 4"

Cratex or brite boy: available in 3 grades, various shapes for buff or hand use. Good for fast cutting where emery cloth is difficult to use.

Felt: hard, square-faced, knife, edge, cone (Various sized cones are useful for buffing inside of rings—are less apt to cause accidents than emery cones on wooden mandrels)

Stitched muslin, 6" or larger to fit equipment

Stitched flannel, 6" or larger to fit equipment

Buffing motors (one or more) approx. 1700 r. p. m. with dial shafts for permanent installation of buffs.

(It is preferable to have one heavy duty buff for large-metal work and allow quick removal of different buffs).

Circle cutter (not essential)

Combination gas or air torch

Prestolite tank and gauge (several torches may be operated from one tank by proper valving).

No. 6 torch tip needed for annealing

No. 1 or No. 2 for small soldering operations

Grinder, double shaft, 3 h. p. or heavier

Squaring shears, 36"

**Stakes—**

- T-shaped raising stakes
- Steerhorn
- Beak horn
- Seaming
- Planishing
- Tray edge
- Square, flat
- Knife edge
- Bottom, round, 3 sizes
- Spoon, two sizes
- Stake holders, assorted for small shaping stakes
- Stake plate, mounted securely on heavy bench
- Vise, machinist's heavy duty, securely mounted

**Materials—Permanent Installation:**

Pickling equipment—A vat constructed of wood, painted with asphalt paint, lined with sheet lead, fitted with snug cover is best. A five gallon crock thoroughly coated inside with asphalt, set in a tray similarly treated may be substituted. For small work, a pyrex glass bowl set in a lead-lined or acid-proofed tray is more practical. A wooden salad spoon will allow pickling of tiny pieces of metals as the spoon floats in the bowl, and is also useful for retrieving work from the bottom. Provision should be made so that pickle vats may be readily cleaned.

Bracelet mandrel

Draw plate—one combination square, round, half-round (smaller hold about 30 gauge)

Draw tongs

Files, ½ round tapered, 6", No. 2, and No. 3 cut

Files, needles, set of 12 assorted

Flux, borax (Handy-flux, E-2-Flo, Battern's)

Hammers—rawhide, raising, planishing, chasing

Special raising shapes as required

Hand scraper (may be made from old triangle file)

Iron binding wire: No. 22 and No. 28 B & S gauge

Mouth blowpipe

Old toothbrushes

Pickling compound—Sparex No. 2, sulphuric acid (1 part to 12 parts of water is faster but dangerous)

Pickling tongs, copper or bronze

Pliers, chain nose, 5"

Pliers, round nose, combination, flat nose (satisfactory substitutes for the chain nose and other shapes may be made by filing the jaws or ordinary long nose pliers)

Ring clamps, wooden

Ring mandrel, calibrated

Ring mandrel, uncalibrated

Set ring size

Rouge, red or white

Silver solders—three grades, sheet form (better color match than wire form) (Latter useful for large work. Pre-cut into small snippets, keep in labeled

boxes.) Wire form may be cut to 2" length, attached to a labeled ring.

Sterilizing solution

Thickness gauge

Tweezers, soldering

Tweezers, pointed

Twist drills: sizes 50 and 80 assorted



**Materials—Equipment Outside Purchase:**

Annealing ring, gas fired, permanent installation or  
Annealing pan, sheet metal pan, approximately 20" diameter by 3" deep, filled with lump pumice (better if mounted to revolve).

Anvil, 80 #, securely mounted

Bench shear, 3" blade, Beverly or equal

Box brake, 12" to 16"

Buffer hood (may be purchased or made from sheet metal)

**References:**

- The Design of Custom Jewelry*, Robert Von Newman; Chilton Co.
- Copper Craft and Silver*, Karl and Norma Kramer; Chilton Co.
- Enameling on Metal*, Oppi Untracht; Greenberg Publishers
- Metalcraft and Jewelry*, Emil F. Kronquist; Bennett
- Cabochon Jewelry Making*, Arthur & Lucille Sanger; Bennett
- Jewelry Making*, D. Kenneth Winebrenner; International Textbook Co.
- Handbrought Jewelry*, Lois Franks; McKnight & McKnight

## Enameling

### Objectives:

- Enameling offers exceptional opportunities for the study of color and design in a medium that is appealing to the student.
- Individual expression is stimulated through a variety of colors and design possibilities.



- Since enameling does not lend itself to imitative realism, the student is encouraged to work creatively with color and abstract design.
- The flexibility of enameling techniques makes this craft adaptable to the needs of each student.
- The beginner finds the confidence through success with basic methods, while the advanced student finds stimulating processes to meet his widening interests and abilities.

- Working with glazes, metals, and other new materials often develops interest in related crafts.

### Materials:

#### Tools

Abrasive cloth  
Brushes  
Files  
Lacquer  
Metal snips  
Palette knife  
Vise  
Buffer  
Asbestos blocks  
Atomizer  
Enameling rack  
Jewelry cement  
Jewelers' pliers  
Pattern snips  
Rawhide mallet  
Silver solder  
Torch  
Tongs  
Soft sheet copper—  
20 gauge (24 oz.)  
18 gauge (32 oz.)  
Ball peen hammer

Carborundum stone  
Jewelers' saws, frames,  
and blades  
Pumice  
Steel wool  
Twist drill and bits  
Kiln  
Asbestos gloves  
Enameling fork  
Gum tragacanth  
Jewelry findings  
Needle files  
Pickling compound  
Screen cloth, 60 mesh or  
nylon stocking  
Tweezers  
Sheet metal (18 gauge)  
Soldering flux

*Media*  
Enamel

### Suggested Projects:

Flat pictures (small blocks or large sheets)

## Copper Enameling

### Suggested Projects:

Earrings	Tie clasp	Plaque
Pins	Buttons	Ash tray
Pendants	Napkin rings	Cuff links
Bowls	Bracelets	Belt buckle

### References:

*Jewelry Making as an Art Expression*, Chilton Publishers  
*Coppercraft and Silver*, Karl and Norma Kramer; Chilton Publishers  
*Enameling on Metal*, Oppi Untracht; Greenberg Publishers

### Techniques:

- The Limoges technique is best suited for most experienced with this medium. A variety of methods are satisfactory for applying the enamel but "dusting" is one of the least demanding of time and skill for the beginner.
- Gum tragacanth can be brushed or sprayed on the copper prior to dusting on enamel. Only spraying can be used if several layers of enamel are applied on the unfired piece.

- Excess enamel can be caught and returned to the container if a clean sheet of paper is placed under the article being dusted.
- Experience will enable the student to determine the exact thickness for the layer of enamel. Demonstrate how colors can be blended, edges darkened, and lumps and threads added for special effects.
- A sample tile should be fired both in the kiln and with a torch to show how enamels fuse. The latter method will afford the student a better view of the process. To avoid damage to the project, have the student allow time for the piece to dry before firing.
- After the first firing, show the student how stencils, overglaze, and sgraffito can be used to create designed effects. Counter-enameling may be demonstrated but beginners should not be expected to attempt the process.
- Demonstrate the steps involved in finishing enameled wire.
- Scale may be removed with steel wool and edges finished with a wet carborundum stone. The stone should be used in a horizontal direction to avoid chipping the enameled surface. Findings may be

soldered or cemented into place. The brightness of the exposed copper surfaces can be protected with a coat of lacquer.

- Champlevé, cloisonné, or plique-a-jour are techniques which may be tried by advanced students.

NOTE- Small glass bottles with removable 60 mesh screen tops make excellent containers for dusting enamels.

### *Emphasis:*

- Understanding use of transparent and opaque colors.
- Planning shapes (cutting and filing)
- Cleaning
- Understanding various enameling techniques (sgraffito, cloisonné, champlevé, stenciling, dry sift, slush, etc.)
- Understanding firing procedure.
- Understanding reasons for enameled objects cracking, cooling too rapidly, dirty enamel, dirty copper, enamel too heavy for weight of copper.
- Finishing and soldering
- Facilities for firing and equipment required for forming metal will limit the dimensions and type of project. Within these limitations, however, the scope of the course can be varied and stimulating.

### **Cutting, Shaping, and Cleaning Copper**

Cut-paper is a useful method for planning designs, for shapes can be developed and refined quickly. After the design has been chosen, it can be cemented to the metal to guide cutting. The design will determine the tools for the cutting.



The beginner will have more success in cutting straight-sided shapes with metal snips. Likewise, enameling can be accomplished more easily on a flat surface than on an angular or curved surface. As skills are gained, more complex designs may be attempted.



After cutting the metal, it should be pounded flat with a rawhide mallet. The vise, pliers, and metal forms may be used to bend or curve the metal shapes. Forms may be helpful in some processes; for example, in turning the sides on a small box or pin. This illustration is used to clarify the term "metal form" to avoid confusing it with mechanical copying.

When finishing with files, the student may find it helpful to leave the metal burr raised slightly on the side to be enameled. This will hold the unfired particles of glaze in place until the firing is completed. Thinly enameled edges which show up as black lines may be avoided this way.

It is necessary to remind the student repeatedly that cleaning is one of the most important steps in successful enameling.

If pickling solutions are used, safety precautions should be observed. Some teachers have found a vigorous cleaning with steel wool and detergent to be effective. Pickling could be reserved for those processes which require a brighter metal.

### *Objectives:*

- To acquaint the students with enameling history, its use commercially, and its value as a craft.
- To arouse interest in the various techniques of enameling and to stimulate interest in working with color.
- To gain knowledge and skills in handling the tools and equipment used in enameling.
- To learn about firing procedures.

### **Design**

If design is to become a creative experience, it should be developed through an exploration and understand-

ing of material. When it is taught as an abstract concept, separated from need and experience, it may develop imitativeness and uncertainty. Because of the student's immediate interest is in starting work with a new and exciting craft material, he is likely to be impatient with a formal consideration of design. Experimentation with a small tile and a few enamels should follow a brief demonstration of the enameling process. Design will be expressed intuitively through choice of colors and arrangements. The finished tiles could become the subject for a meaningful class discussion of design and technique. A reference chart might be made from these tiles. Throughout the term new samples could be added as interesting techniques are tried.

To avoid burdening the student with technical problems, materials should be limited and techniques simplified. For example, the metal tiles could be pre-cut and the enamels could be restricted to opaque colors. Threads and lumps of enamel add interest and variety.

Though accidental effects are interesting and often suggest new techniques, the student should strive for control of the medium.

After experimentation with materials, a block of time should be set aside for a consideration of design and its application. Most of the projects will be concerned with two-dimensional shape and surface enrichment. While means for teaching design will vary between grade levels, certain fundamentals may be considered as universal. Each design should exhibit a successful relationship of shape or form to function, construction, and decoration.

The beginning student may study shape through free brush or cut-paper exercises, while color combinations can be explored with transparent or opaque watercolor. Spattering, stenciling, and mingling give the student practice with techniques that are adaptable to enameled design. The advanced student should be encouraged to try decorative designs which may be used for sgraffito, overglaze, or cloisonné. When working in a new material, the student needs guidance in relating design to his skill in the use of tools. Problems frequently arise when a familiar material is used for planning a design to be executed in an unfamiliar process. Frequent demonstrations in the use of tools should be helpful to the student.

### **Glass: Slumping—Laminating—Jeweling**



#### *Objectives:*

- To gain knowledge about glass, its history, its composition, and the modern processing of glass.
- To become adept at handling glass and the tools which have to do with glass craft
- To understand glass, its potential and its limitations as a material for crafts.
- To make well designed projects by using the various techniques such as slumping, laminating, and jeweling

- To learn how to fire glass for the various techniques to be used.

#### *Materials:*

##### *Tools*

- Hand cutter
- Lubricants for cutting
- Padding (cork or firm carpeting)
- Glass cleaner
- Clean rags
- Abrasive stone

##### *Media*

- Glass—bottle glass
- picture window (single)
- window (double)
- textured plate
- industrial stained
- Graphite glass pencils
- Whiting
- Materials for lamination
- Copper enamels
- Underglaze
- Metals
- Fiberglass
- Mica
- Wide-jawed pliers
- Kim—enameling ceramic
- Molds—Terra cotta
- Fire brick

#### *Concepts:*

- Understanding the various characteristics of sheet glass—
  - Firing procedures
  - Making molds
  - Separators
  - How to cut glass properly

Lamination  
Slumping  
Jeweling  
Making wire extensions  
Various decorating techniques  
Adhering glass to other materials such as clay

**Suggested Projects:**

Bowls  
Dishes

Blanks for decorating purposes  
Suspensions  
Panels  
Standing objects  
Lamps  
Jewelry (all types)  
Trivets (glass fired between cast iron edges)  
Paper weights  
Christmas ornaments  
Various projects where glass is adhered to clay

## **Glass—Fusion and Lamination**

**Working Knowledge:**

Designing templates  
Forming lead shape  
Casting lead shape in refractory materials  
Cutting glass  
Fusion of glass  
Lamination of glass  
To illustrate pictorial theme in a glass laminated plaque

**Concepts:**

The fitting of the decoration on transparent plane.  
The functional aspect of the foot rise to form.  
The use of heat in slumping and annealing glass.

To design and vent marinite beds for glass plaques.  
To work with opaque and transparent colors on glass.  
To create texture within glass using compatible materials.

**Suggested Projects:**

To design, form, cast, cut glass, decorate glass tray.  
To create jewelry by utilizing glass scraps.  
To make a laminated glass bowl.  
To write a report on each project.  
Design pictorial glass plaque with back-lighting effect.  
Design pictorial glass plaque and frame for reflected light effect.

**Working Knowledge:**

Construction of complex form  
The piercing of planes in form  
Various methods of decorating plaster sculpture

**Concepts:**

Preplanning for control of complex statements.  
Use of tools for piercing planes and creating texture.

## **Plaster**

Metallic spray finish for metal effect.  
Tempera and wax finish for patina.

**Suggested Projects:**

Complex single theme of figure or animal image.  
A non objective exploration of a plaster form with texture and piercing technique.

## **Stained Glass**

**Objectives:**

- To learn about historic cathedral glass.
- To stimulate interest in the effects of light through transparent colors and to work out designs accordingly.
- To gain skill in cutting and joining glass pieces.

**Media:**

Glas. (of uniform thickness and various colors)  
India ink  
Charcoal  
Graphite glass pencils  
Glass cutter  
Gloves (precaution against cuts)  
Lead or grouting  
Paper for cartoon (thumbnail sketches)



### Concepts:

Planning design (emphasis on color effects)  
Making cartoon (simplicity, avoid complicated color mixtures)  
Divide motif into segments  
Overlay glass on cartoon  
Cutting (safety factors)  
Leading  
Cleaning  
Finishing

### Suggested Projects:

Panels (standing or hanging)  
Lamp bases  
Trays  
Candle holders  
Suspensions  
Wind chimes

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## Etching on Glass

### Objectives:

- To learn through a simple process a professional skill
- To understand and appreciate other methods of etching.

- To be able to recognize well designed commercial objects.
- To relate the stencil process to another craft.
- To become aware of leisure time possibilities.

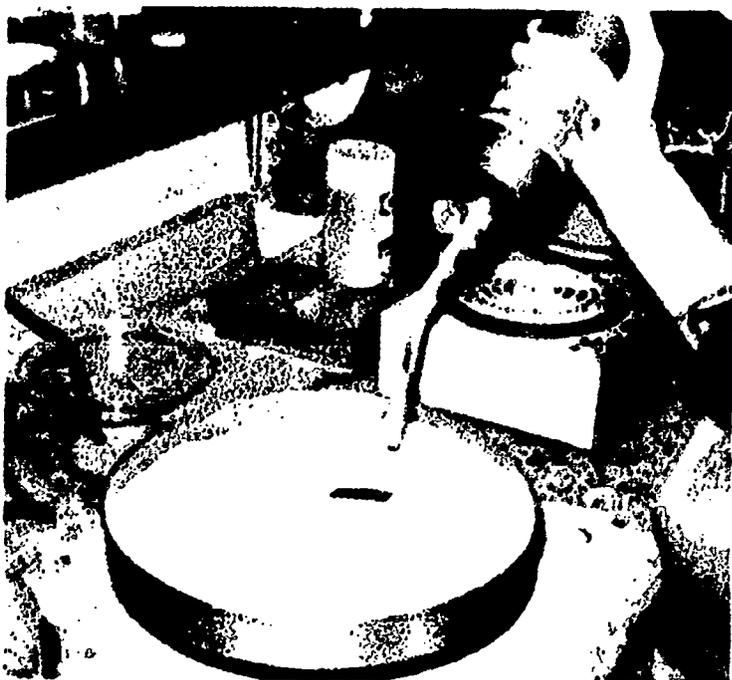
### Materials:

#### Tools

Razor blades

#### Media

Etching cream    Masking tape  
Aluminum foil    Tracing paper  
Glass object  
Hard lead pencil-stylus



### Concepts:

Planning and tracing design  
Transferring  
Cutting stencil  
Masking  
Application of etching cream  
Cleaning

### Suggested Projects:

Glasses                      Dishes  
Panels                        Trays  
Suspensions

### References:

*Glass Craft*, Kay Kinsey; Chilton Publishers  
*The Technique of Stained Glass*, Patrick Reyntiens;  
Watson-Cuptill

## Mosaics

### Objectives:

- The ability to create an interesting design using small pieces of glass, clay, seeds, paper, wood, stone, adhered to a background.
- Development of an appreciation of color and texture.

- To provide an opportunity for individual or group work.
- To promote interest in mosaics, their relationship to past cultures, and their revival as a contemporary art form.

**Materials:**

<b>Tools</b>	<b>Media</b>	
Tile cutters	Glass tesserae	
Glass cutters	Many varieties of glazed or unglazed ceramic tile (bought or handmade)	
	Glass (transparent or opaque)	
	Panels (plywood or masonite)	
	Grout (cement for things needing firmer support)	
	Adhesives (magnesite, miracle adhesive, Elmer's glue)	
	Pieces of various colored wood	
	Shells	
	Paper	
	Different colorful pieces of scrap—	
	Stones	Pebbles
	Broken bottles	Dishes
	Plastic	Linoleum
	Buttons	Beads
	Seeds	

**Concepts:**

Understanding range of color, texture, and materials which can be used as a mosaic.  
 Planning according to material used and its future environment.

Skill of cutting and placing pieces.  
 Finishing.

**Suggested Projects:**

- Designing
- Cutting and arranging mosaic pieces
- Grouting techniques
- Group murals for school or community
- Mosaic sculpture
- Series of related panels
- Individual mosaics
  - Portraits
  - Figure compositions
  - Abstract and geometric designs
  - Trays, tables, etc.

**References.**

- Mosaic Patterns*, Edwin Hendrickson; Hills & Wang Publishers
- Mosaic Hobby and Art*, Edwin Hendrickson; Hills & Wang Publishers

**Wood**

**Objectives:**

- To learn about wood, its natural beauty, its potential for crafts.
- To recognize good design in wood and make intelligent and sensitive selections as consumers.
- To gain knowledge of how wood is used in other areas, such as architecture and interior design.

**Materials:**

<b>Tools</b>	<b>Media</b>
Wood carving tools	G or C clamps
Oil stone	Power drill
Stains	Chisels
Mallet	Sandpaper
Nails, screws, tacks, etc.	Paints
Square	Saws
Adhesives	Sander (vibrating)
	Plane
	Surface plane (round and flat)
	Wood—
	pine
	basswood
	redwood
	balsa
	Philippine mahogany
	Wood scraps
	Oils for finishing
	Varnish

**Working Knowledge:**

Understanding the various tools and their uses, care, sharpening, and safety.  
 Knowledge of different types of woods.  
 Planning steps necessary for control in working with wood.  
 Lamination of woods.

**Concepts:**

Planning design of object and approach



Selection of wood appropriate to scale and idea  
 Working knowledge of graining of woods  
 Proper safety precautions (tools, safety mask)  
 Understanding basic joints  
 Working with properly dried wood  
 Various methods of finishing woods

**Suggested Projects:**

- Projects in soft woods for basic cutting skills
- Project in soft wood to study grain characteristics
- Hardwood project which is developed within the individual's creative interest

Wood in conjunction with other materials (such as silver, copper, etc.)

Various projects—

- |               |                     |
|---------------|---------------------|
| Bowls         | Mobiles and stables |
| Trays         | Carvings            |
| Frames        | Animals             |
| Wall hangings | Figures             |
| Jewelry       | Masks               |

**References:**

- The Art of Wood Carving*, John Upton; Van Nostrand  
*Wood Design*, Donald Wilcox; Watson-Guptill  
*Wooden Images*, Norman and Jones; Reinholt  
*Creative Wood Design*, Ernst Rottger; Reinholt  
*Wood Carvings for Beginners*, C. Graveney; Reinholt  
*Wooden Images*, Laliberte and Jones; Reinholt

**Leather**

**Objectives:**

- To acquaint the student with leather, its source and preparations for use, its use in industry, and its possibilities and limitations for craft projects.
- To learn the history of leathercraft from ancient times to present.
- To gain knowledge about leather tools and how to use them.
- To provide possible leisure time activities.
- To understand and recognize the various techniques of decorating leather.
- To stimulate interest in buying wisely and intelligently.

**Materials:**

**Tools**

- |               |                 |                 |
|---------------|-----------------|-----------------|
| Skivers       | Modeling tools  | Swivel knife    |
| Awl           | Revolving punch | Sponge          |
| Dye           | Neat lac        | Templates       |
| Mallets       | Oblong punch    | Edge erasers    |
| Steel square  | (various sizes) | Leather shears  |
| Prong chisels | Lacing needles  | Hardwood blocks |
| Snap setter   |                 |                 |

**Media**

Leather such as cowhide or steerhide in various weights for various crafts purposes.

- |                  |                   |
|------------------|-------------------|
| Lacing (leather) | Rivets            |
| Snaps            | Dye               |
| Neat lac         | Leather finishers |
| Leather cleaner  | Saddle soap       |

**Concepts:**

- Natural beauty of leather
- Design should enhance, not detract from natural beauty of leather
- Correct laying-out and cutting of leather
- Correct care and handling of tools
- Construction of project
- Finishing

**Suggested Projects:**

- |              |               |
|--------------|---------------|
| Book marks   | Coin purses   |
| Luggage tags | Key cases     |
| Belts        | Box coverings |
| Jewelry      | Glasses case  |

**References:**

- Applied Leathercraft*, Chris Grovemen; Manual Arts Press

**The Textile Arts**

**Working with Fabrics, Yarn, Thread**

**Objectives:**

- To discover the rich heritage of textile arts.
- To understand and appreciate color and texture, to explore the possibilities of combining, arranging, and decorating these materials.
- To encourage good craftsmanship and intelligent consumer buying.
- To combine line (yarn) and form (cloth) in a creative way.
- To foster an interest in a specific area such as weaving, applique, or stitchery.

**Materials:**

- |                  |                 |
|------------------|-----------------|
| <b>Tools</b>     | <b>Media</b>    |
| Looms            | Reed            |
| Warping frame    | Rafia           |
| Least sticks     | Yarns           |
| Drawing-in-hooks | Nylon stockings |
| Shuttles         | Strings         |



### **Concepts:**

Texture and color  
Various type looms  
Basic weaves  
Planning warps and correct tensions  
Structure of cloth

### **Suggested Projects:**

Material for—  
Runners  
Pocketbooks  
Mats

### **Working Without a Loom:**

Finger weaving  
Cigar box weaving  
Tongue depressor weaving  
Cardboard weaving  
Spool weaving

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## **Stitchery and Fabrics**

### **Objectives:**

- The ability to arrange and combine various stitches to form a design or pattern in yarn, threads, and colors on a textile background.
- An appreciation of the rich heritage of textile arts from past to present.
- To encourage good craftsmanship and intelligent consumer buying.
- To explore leisure time possibilities.

### **Materials:**

#### **Tools**

Needles  
Scissors  
Stretcher

#### **Media**

Background material—  
Burlap Drill or duck  
Monk's cloth Hard woven fabric  
Felt Linen  
Various yarns, twine, ropes

### **Emphasis:**

Linear stitches—varying width and sizes  
Groups of stitches next to each other to build texture, pattern, and color (varying yarns)  
Basic stitches which need to be mastered  
Planning design  
Neatness of work (sewing technique)  
Finishing

### **Suggested Projects:**

Individual wall hangings with various textures  
Wall hangings using geometrical pattern, abstract pattern, semi-abstract design



Mural—one or group using central theme  
Pocketbooks or bags  
Pillow covers  
Scarves  
Wall hanging combining stitchery, appliqué, and hooking

## **Textile Decorating**

### **Objectives:**

- To learn to enhance fabrics by employing various printing and dyeing techniques.
- To explore different methods of printing on fabric.
- To understand the important role fabrics have played in history.
- To appreciate the role of printed fabric in industry.
- To gain a knowledge of the various tools and materials in printing process.

### **Stenciling**

#### **Objectives:**

- To gain relationships of stenciling to the industry of textile designing.
- To gain knowledge about one of the more common methods of duplicating.
- To explore the possibilities of stenciling (using both positive and negative methods).

- To enhance paper or fabric for some functional purpose.
- Printing by using stencils can be used to emphasize the principals of good design and composition.

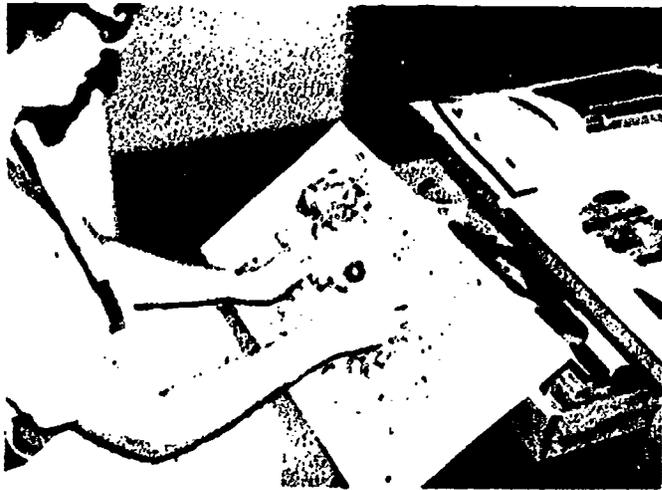
**Materials:**

**Tools**

Spray gun  
Stencil knives  
Stencil brushes

**Media**

Stencil paper  
Thumb tacks  
Extender  
Fabric  
Heavy paper  
Thinner  
Backing for attaching fabric  
Inks or paint (water/oil)  
Cardboard  
Textile paints  
Glue  
Tempera



**Concepts:**

Color study—effect of mixtures, shading, etc.  
Planning design (simplicity)  
Amount of paint to be used—for brushing or spraying  
Cutting stencils  
Cleaning (brushes, stencils, etc.)  
Finishing—heat application on fabrics to make paint permanent.

**Suggested Projects:**

Fabrics—  
Wall hangings  
Place mats  
Table cloths  
Skirts  
Scarves  
Runners  
Greeting cards  
Wrapping paper  
Stationery  
Book covers  
Borders, frames, etc.

**Batik**

**Objectives:**

- An understanding of the batik process and the ability to decorate a fabric using it

- A knowledge of the origin of batik and the strong influence it has had on textile design.
- An increasing ability to make use of the fluid nature of design possible with this technique.

**Materials:**

**Tools**

Brushes  
Hot plate  
Granite pans  
Wooden spoon  
Iron  
Ironing board

**Media**

Beeswax and paraffin  
Tjan-tung (optional)  
Frame for stretching cloth  
Newspaper  
Cold water dye  
Fabric (unbleached muslin, silk pongee, cotton, batiste, and handkerchief linen)

**Study and Discuss:**

Japanese method of batik

**Suggested Projects:**

Table mats  
Tray cloths  
Wall hangings  
Book covers  
Head scarfs  
Ties

**References:**

*Introducing Batik*, Evelyn Samuel; Watson-Guptill  
*Creative Textile Design*, Rolf Hartung; Watson-Guptill  
*More Creative Textile Design*, Rolf Hartung; Reinhold  
*Design on Fabrics*, Meda Johnston, Glen Kaufman; Reinhold  
*Batik: Art and Craft*, Nik Kravinsky; Reinhold  
*Textile Printing and Design*, Nora Proud; Reinhold  
*Fabric Printing by Hand*, Stephen Russ; Watson-Guptill

**Tie-Dyeing**

**Objectives:**

- The ability to hand decorate a fabric using this technique.
- An appreciation for good craftsmanship.

**Experiment With:**

The three varieties of tie-dye pattern—  
Rosette  
Broad stripe  
Fine print

**Materials:**

**Tools**

Hot plate  
Wood stirring stick  
Glass container

**Media**

Several weights of thread, twine, and cord (plumber's cord or lampwick)  
Fabrics—  
Silk  
Sokl chiffon  
Georgette  
Percale  
Muslin  
Boilable dye  
Handkerchief linen  
Batiste  
Soft viscose rayon

## Applique

### Objectives:

- To create textile designs by fastening cut out pieces of fabric onto a background of fabric.
- To gain appreciation of the American Folk Art in this medium.
- To combine line and form (thread or yarn and cloth) in a creative way.
- To appreciate good hand-made consumer goods.

### Materials:

#### Tools

Needles  
Scissors

#### Media

Background fabrics  
Scrap materials of various colors  
Various colored threads and yarns  
Felt  
Glue  
Other scrap materials which can be added for decoration such as beads, sequins, etc.

### Emphasis:

Planning of designs  
Learning basic stitches  
Cutting experience  
Arrangement of pieces against background  
Finishing

### Suggested Projects:

Wall hangings with subject matter and color schemes suggested by nature.



Geometric patterns on fabric.  
Non-objective textural studies.  
Group murals centered about a particular subject.  
Wall hangings that combine stitchery with the art of applique.

## Netting and Macrame Knotting



### Objectives:

- To stimulate interest in an ancient craft.
- To understand how a craft can start as a necessity and become decorative.

- To accumulate knowledge about various techniques of knotting.

#### Tools

Small press gauge  
Netting needle  
Pins  
Firm background for stretching (frame)  
Leather strips  
Pegs (wooden)

#### Media

Strong threads and yarns

### Emphasis:

To understand the various methods—  
 Filet network                      Looped lacing  
 Stretching                              Crossed threads  
 Stitching                                Cording  
 Twisted rope                            Plait  
 Looped rope  
 How to make accessories

### Suggested Projects:

Shopping bags	Cording
Handbags	Mat
Scarfs	Potholders
Stoles	Purse

## Rug Hooking

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### Objectives:

- To gain appreciation of color, texture, and pattern as combined with the craftsmanship of hooking various materials to a backing.
- As future consumers to become intelligent about selecting and buying handmade goods.

### Materials:

#### Tools

Rug hooks  
Yarn cutters  
Frames  
Scissors

#### Media

Rug yarn  
Rug backing  
Wool scraps

### Suggested Projects:

Rugs  
Mats  
Wall hangings  
Sets of samples  
Projects using a combination of these processes  
Non-objective textural studies

## Weaving

### Objectives:

- Student to rely on his own judgment and to find confidence.
- To develop sensitivity to color and texture.
- To learn the basic techniques of weaving.
- To apply this knowledge to individual projects in a creative way.
- To develop understanding and appreciation of weaving through its history.
- To understand the relationship of hand-weaving to industry.
- To develop skills in the proper use of weaving equipment.

### Materials:

#### Tools

Sewing machine  
Looms—  
Flat  
-2 harness  
-4 harness  
-8 harness  
Drawing-in-hooks  
Inkle looms  
Frame looms  
Cardboard—loom weaving  
Warping frame  
Shuttles  
Lace sticks

#### Media

Yarns (various colors and textures)  
Scraps (scraps that can be used in weaving)  
Cloth  
Reed  
Leather and plastic lacing  
Nylon stockings

### Concepts:

Understanding the relationships of color to texture.  
How to thread various types of looms.



How to use warping frame.  
Know the basic weaves (6).  
Correct tension.  
How to plan for finished project (such as four place-mats done at one time on the loom).  
Finishing.

### Suggested Projects:

Set up samples (six basic weaves)  
Wall hangings  
Material for bags, ponchos, scarfs, etc.  
Rugs  
Tapestry  
Rya and other knotting techniques  
Cigar box weaving  
Finger weaving

Few crafts have the universal appeal of ceramics. This medium offers every student, regardless of his previous art experiences, the satisfaction of creating something original and useful. The plasticity of clay encourages experimentation and provided impetus for the student's imagination. Basic skills are quickly grasped and a feeling of confidence grows through knowledge that an unsuccessful form can be changed easily.

Frequently the student who feels a lack in artistic talent discovers he is designing freely in forms, textures, and colors. Because of these qualities, ceramics makes an especially good craft experience for the non-art major and the student interested in a single art experience.

The unlimited scope for experimentation with form and decoration challenges the skill of the advanced student.



### Materials—Warehouse Item:

Brushes	Earthenware crocks,
Buckets	1 gallon and 5 gallon
Clay, red	Modeling tools
Clay, white	Oil cloth
Dish pans	Rags
	Rolling pins
	Scrub brushes

### Materials—Outside Purchase:

Decorating wheel	Pyrometric cones
Engobes	Slip tracer
Finishing rubber, kidney shapes	Sponges
Kiln wash	Stilts
Knives, fettling	Turning tools
Plastic material	Underglaze

## I. DESIGN

### NOTE:

Hand sculpture of "a handee" is made with the hands only, using a lump of clay the size of a baseball. It is not worked on a flat surface or stand so that when completed, it is an abstract, free-standing piece of sculpture. It should be worked with both hands, developing forms which emerge as a result of pressing and squeezing.

The student may be introduced to this craft with a visualization of the term CERAMICS. He may have only a vague conception of the meaning of this word. Work from previous semesters, professional examples of good pottery, and samples of the tools and raw materials of the craft will help to create an understanding. Visual aid material could be used to supplement these examples and a list for reference has been included.

Because good design recognizes the unique properties of a material, introductory craft experiences should provide for exploration. Mixing and wedging the clay will help acquaint the student with some of its physical characteristics.

Hand sculpture can achieve two important objectives. First, the manipulation of clay to disclose the working properties of the material and second, the awareness of basic volume relationships. Through experimentation, the student will find those forms best suited to the material. Many of the basic working methods used with clay will be discovered through hand sculpture.

### Class Project:

Plaster  
Plaster bats  
Wedging board  
Wooden strips--  
5" x 15" for rolling flat clay slabs

### Equipment:

Kiln  
Potter's wheel

## II. HAND-BUILT POTTERY

Hand-built ceramics should lead the student toward control of the medium. The free, intuitive forms of hand sculpture lend themselves to slab, strip, and coil methods. The teacher should demonstrate each of these techniques. These methods can be adapted to the needs of the seventh grade beginner or the twelfth grade art major. With the development of basic skills, the variety of articles which can be made is unlimited. However, the size of the student piece must be limited according to the available kiln size. These basic skills are:

1. To prepare original patterns and templates as needed in the construction of slab or coil pottery.
2. To roll an even coil or slab of clay.
3. To join slabs or coils through careful scoring and joining with slip.
4. To design and construct well-formed handles, knobs, or other appendages, and
5. To emphasize form and structure through surface enrichment.

### NOTE:

The student may develop both an historical interest and an appreciation of ceramics produced by primitive cultures using similar hand-built techniques. American Indian pottery may serve as an example.



### *Suggested Projects for Hand-built Ceramics*

This list is not to be considered comprehensive. The teacher should discuss possible projects, listing them on the blackboard for reference. Always work in a reasonable size limit.

Slab method—

1. Tray—rectangular, triangular, or square
2. Box with cover—incised or carved monogram
3. Bowls
4. Salt and pepper shakers
5. Teapots
6. Free-form plates or shallow bowls for floating flowers
7. Vases
8. Tiles

Coil method—

1. Jars with covers
2. Jugs
3. Bottles
4. Cream and sugar bowls
5. Coil sculpture

### NOTE:

Coil pieces may be trimmed on the wheel if desired. However, this should not take the place of the experience of throwing on the wheel. It should be pointed out that the coils can be used as an interesting decorative effect.

### III. WHEEL-THROWN POTTERY

While the student should be acquainted with the technique of working on the wheel, stress should not be placed upon its mastery. The degree of skill and practice needed to become proficient may be beyond the scope of the course. After throwing has been demonstrated by the teacher, work on the wheel should be determined on the basis of individual interest. The student should have an understanding of the following:

1. Centering
2. Opening the clay mass
3. Forming a cylinder
4. Shaping
5. Trimming the top and cutting the foot

Knowledge of good proportion and functional design must be considered at all times. Experimentation with a variety of shapes from tall bottles to shallow plates should be encouraged. Spouts, handles, lids, and similar appendages should be studied for form and construction.

#### *Suggested Projects for Wheel-Thrown Pottery*

Bowls  
 Jugs—with pulled handles and spouts  
 Plates  
 Casserole with cover  
 Tea or coffee pot  
 Bottles

### IV. MODELING

The student often finds great satisfaction in clay modeling. The adolescent's interest in the representation of the human figure finds a natural outlet in this activity. This experience may be correlated with previous three-dimensional work, such as mask-making, puppetry, or design. Realistic or abstract subject matter may be chosen depending upon the student's interest, but certain technical and aesthetic limitations must be stressed. Those described below may serve as an outline.

1. Clay should be heavily grogged to prevent warpage.
2. Coil or slab methods may be used to construct abstract or realistic sculpture.
3. No armature can be used to support the sculpture if it is to be fired.
4. Large pieces must be hollowed out. About  $\frac{3}{4}$ " should be the maximum thickness of the walls.
5. Sculpture should be designed in relation to the characteristics of the material.

### V. GLAZING AND DECORATIVE EFFECTS

Glazing and decorating the bisque ware can be an exciting adventure. The transformation which the glazed ware undergoes upon firing always stirs the student's imagination. Charts and glaze tiles will help create an understanding of the many terms and techniques related to ceramic decoration. At first, it may be wise to limit the choice of techniques to a few. For example, engobes, sgraffito, and a transparent glass offers a variety of possibilities and enables the student to thoroughly understand one process.

The student should understand what constitutes a glaze, the functions it performs and its correct application to bisque or green ware. Some areas for exploration might be:

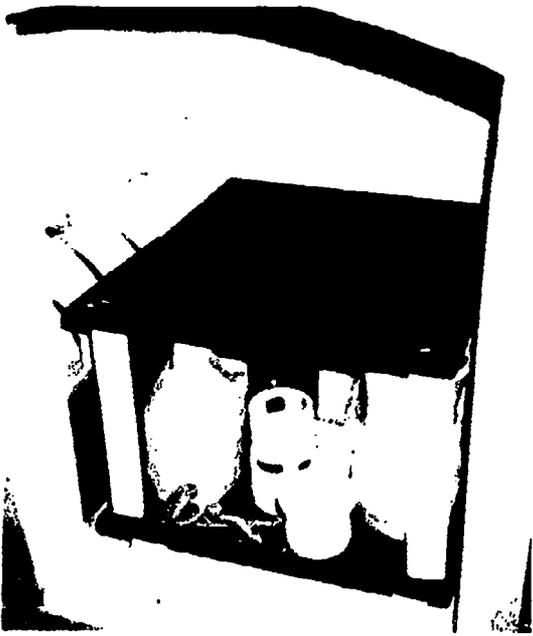
1. Engobes, or colored slips, combined with sgraffito.
2. Glazes combined for mingling, fusion, or jewel effects.
3. Underglaze or overglaze designs.
4. Slip trailing and wax resist design.
5. Interplay of glazed and unglazed surfaces.

### VI. STACKING AND FIRING THE KILN

A basic knowledge of the working of the kiln and procedure for stacking should be part of the course requirement. The beginning student should be expected to stack the kiln for a bisque firing at least once during the summer. Stacking for a glaze firing might be performed by advanced students with the teacher's guidance.

#### NOTE:

All glazes should be tried on sample chips. These chips may be tied about the neck of the corresponding glaze bottle or they may be kept tied together. Each chip should have the name and number of the glaze it represents inscribed on the back.



**Some Faults That Show Up After Glaze Firing:**

1. Pin holes  
This may be caused by air holes in the clay.
2. Rough surface  
If a coating of glaze is applied too lightly, a rough surface may result. It may be corrected by warming the piece on a radiator and re-glazing.
3. Blistering  
If a glaze is applied too heavily or if it is fired above its recommended temperature, blistering may occur. The piece should be refired at a lower temperature and slower speed.
4. Running  
Firing above the recommended cone for a glaze may produce running.
5. Crawling  
Crawling may be caused by either underfiring or the presence of dust on the bisque at the time of glazing. The student should lightly sponge the piece to remove the dust. This condition can be corrected with re-glazing and re-firing.
6. Crazing  
Crazing is an indication that the glaze and clay body do not fit. It is caused by the glaze contracting more than the clay.

**References:**

*Ceramics*, Glen Nelson; Holt, Rinehart, Winston  
*Pottery—Form and Expression*, Margarite Wildenhein; Reinhold

*Hand Built Pottery*, Joseph Drum; International Company.  
*Stoneware and Porcelain*, Daniel Rodes; Chilton Company.

**Clay**

**Objectives:**

- To acquaint the student with the properties and limitations of clay.
- To foster an appreciation of the history of clay, and of well-designed clay objects.
- To afford an opportunity to learn about the various materials and equipment used in working with clay.
- To interest the student in the wide use of clay in industry and to aid him in making wise consumer choices.

**Materials:**

**Tools**

- |                     |                 |
|---------------------|-----------------|
| Clay modeling tools | Cones           |
| Plastic bags        | Stilts          |
| Scrapers            | Bench whirlers  |
| Ticking or canvas   | Fettling knives |
| Posts               | Rolling pins    |
| Thickness sticks    | Kiln            |
| Sponges             | Kiln shelves    |
| Clay bins           | Potter's wheel  |
| Wedging board       |                 |

**Media**

- |        |         |
|--------|---------|
| Clay   | Engobes |
| Glazes |         |

**Working Knowledge:**

- The importance of a design appropriate to the material
- Wedging
- Proper handling and preparation of clay to achieve best results
- Hand-building methods such as pinching, coiling, and slab construction



Glazes and glaze application  
 Decorating techniques such as surface enrichment, underglaze decoration, etc.  
 Decoration if used should enhance the basic form  
 Firing procedure

**Suggested Projects:**

- |   |                      |
|---|----------------------|
| Pinch pot                               | Jewelry              |
| Coil pottery                            | Free-form pieces     |
| Slab building                           | Bas-relief           |
| Sculpture                               | Experimental samples |
| Tiles                                   |                      |
| Mosaics (see art section for materials) |                      |

## Ceramics

### *Working Knowledge:*

Clay—its properties, qualities of various clay bodies, and the various states of clay.

Ceramic kiln—the firing of clay bodies in kiln to make bisqueware, to “fit” engobe, or glaze decoration on bisqueware.

### *Emphasis:*

Understanding the possibilities and limitations in working with clay in various states—plastic, bone dry, bisque.

Suitability of applied decoration to design and purpose of a piece.

Understanding the ceramic kiln and its control points, proper loading of kiln for greenware and glazed ware.

Learning to remedy common defects in firing.

### *Suggested Projects:*

Construct simple forms using basic hand forming techniques—pinch, coil, slab. Keep journal on all firings and materials used in projects.

Demonstration of application techniques.

Application of suitable techniques to each piece.

Have students experience loading kiln.

Have students operate temperature controls during firing.

Have students compile descriptive glossary of ceramic terms.

To write a report on each project.

## The Potter's Wheel

### *Working Knowledge:*

Learning to throw and finish pieces on the potter's wheel.



### *Emphasis:*

Development of skill in the control of clay on the wheel—centering, hollowing, and pulling up the clay.

### *Suggested Projects:*

1. Throwing of basic shapes
2. Turning
3. Attaching of handles and shaping of spouts

### *Background and Appreciation:*

Demonstration by instructor

Films if possible

## Mold Making and Casting

### *Working Knowledge:*

Making of a mold from a well-designed piece by the student.

### *Emphasis:*

1. Good craftsmanship—care and accuracy in the preparation of the model and in the use of plaster.
2. Mold making using sand.

### *Suggested Projects:*

1. Making of one and two piece molds.
2. Making of a press mold.
3. Making of a sand mold.
4. Casting of the above.

### *Background and Appreciation:*

Demonstration by instructor

Films



## Firing Ceramic Ware

### *Working Knowledge:*

Firing clay bodies in the kiln to make bisque ware or to "fix" engobe or glaze decorations on bisque ware.

### *Emphasis:*

1. Loading the kiln
  - a. How to load greenware
  - b. How to load glazed ware
2. Learning the qualities of various clay bodies and what happens when they are fired.

3. Learning to remedy common defects in firing.
4. Learning to apply rules of safety.

### *Suggested Projects:*

1. Give students experience in loading the kiln.
2. Have students operate temperature controls during the firing.

### *Background and Appreciation:*

Study of the parts of the kiln and how it operates.  
Study of various methods, old and new, employed in firing ceramic ware.

## Ceramics

### *Objectives:*

- To arouse interest in making beautifully designed clayware or sculpture with an understanding of the relationship of texture and form to design.
- To acquaint students with clay through understanding its sources, its relationship to history, its potential as a craft, and its use in industry.
- To acquaint students with the tools, equipment, and various techniques involved in working with clay and glazes.
- To acquire knowledge about glazes and glazing.

### *Materials:*

Cones	Modeling tools
Wedging board	Kiln
Thickness sticks	Potter's wheel
Knives (tettling)	Clay bins (storage for clay)
Clay (various kinds such as earthenware, stoneware, etc.)	Scrapers
Benchwhirlers	Sponges
Rolling pins	Tickling
Kiln furniture—shelves, shelf supports, stilts, triangles	Plastic cloth and bags

### *Working Knowledge:*

Preparation (mixing and wedging clay)  
Preparing and understanding methods of glaze application—brushing, dipping, spraying, or pouring  
Learning of basic methods of making clay objects—draping, coiling, slab, pressing, pinching, etc.  
Correct use of the potter's wheel.  
How to stack and fire a kiln.  
How to make a plaster mold.  
Various decorating techniques—sgraffito, incising, overlaying, slip engobe, sprigging, banding, etc.  
How to slip cast.  
Temperatures of firing stoneware and earthenware clays.

### *Suggested Projects:*

Make a piece of pottery using:  
Coil method  
Potter's wheel  
Slab method  
Make a plaster mold and slip cast  
Design a functional project which combines various techniques

Create a sculpture

Make pots with texture (multiple pots)

Create a project that combines a variety of materials:

Clay with metal	Vases
Clay with wood	Bowls
Clay with leather	Abstractions
Jewelry	Candle holders
Mugs	Lamp bases
Pitchers	Figures

### **Draping Methods of Sculpture**

#### *Working Knowledge:*

Preparedness  
 Necessity for simplicity and directness of approach  
 Fluidity of form  
 Figures  
 Animals  
 Birds  
 Free form

#### *Materials:*

<b>Tools</b>	<b>Media</b>	
Container for Plaster (plastic)	Wood Water Fabric Paper Sprays Shellac	Plaster of Paris Wire Excelsior Paint Glazes Varnish

#### *Concepts:*

Application of quick and easy method of sculpture.  
 Use of simple wooden support (plaster base).  
 Addition of wire for rhythm, contrast, and emphasis.  
 Need for underpadding of soft materials.  
 Preparation of plaster.  
 Methods of dipping and draping.  
 Necessity for special attention to the rhythmic movement of the folds.  
 Introduction of conventional methods of finishing  
 Advantages of draping technique for specific effects.

#### *Materials and Tools:*

Plaster of Paris or gypsum	Clay
Rubber mold	Rubber cement
Shims	Razor blades
Plasticine	Lard
Rope, rubber tubing	Shellac
Masking tape	Newspaper
	Elmer's glue

#### *References:*

*Contemporary Sculpture Techniques*, John Baldwin; Reinhold  
*A Sculptor's Manual*, Clarke and Stroud; Reinhold  
*Starting with Sculpture*, Robert Dawson; Watson-Guptill

### **Sculpture**

#### *Suggested Projects:*

1. Make sketches while observing animals. Draw your pet in various positions.



2. Studying of animals from anatomy books:  
 a. Construction of a wire armature of an animal to be covered by plaster, using burlap where necessary  
 b. Form abstract and conventionalize these studies in clay.  
 (1) Finish with steel wool and sandpaper.  
 (2) After baking use to decorate with stains or glaze.

#### *Concepts:*

Construction of a flexible, functional armature which



Bas relief  
Reliefs  
Round

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**Concepts:**

Additive method of sculpture  
Possible use of armature, skeleton of framework  
Turning model as development proceeds  
Different techniques for finishing

**Working Knowledge:**

The difference between bas relief and sculpture in the round.  
Importance of proportion, texture, rhythm, and unity.  
Dramatic quality of understatement.

will express the personality or emotion of the creature when covered by plaster.  
Stress large rhythms, line, and mass. Omit too much detail.

**Portrait in Clay**

**Working Knowledge:**

Modeling of a life-size head, either a likeness or composite.  
Style and degree of realism to be determined by pupil.  
Good structure. Awareness of the anatomy of the human head.

**Sculpture: Mobiles—Stables—Wire**

**Working Knowledge:**

Three dimensional art forms. Space and light are part of their design.

**Concepts:**

Creation with mass, simple rhythmical, flowing lines or geometric shapes that are thoughtfully balanced.

**Suggested Projects:**

1. Wire animals
2. Decorative holiday stables
3. Wind bells
4. Mobiles

**Background and Appreciation:**

Study the relationships of space, form, and color in works of art including G. cometti, Eames, Moholy-Nagy, Gabo, Glee, Calder, Henry Moore.

**Experiences:**

Modeling the additive method  
Plaques



**Sculpture: From Solid Forms**

**Carving and Cutting:**

The subtractive method—  
Plaques  
Bas relief  
Round  
Incised

**Concepts:**

Subtractive method of sculpture.  
Need for preliminary drawing and careful planning.  
Demand for accuracy and kinesthetic control.  
Working from coarse to fine cutting tools.  
Various materials that can be used.  
Need for texture on certain materials.  
Positive and negative space.  
Techniques for cutting.  
Safety precautions.  
Characteristics of materials.

## Sculpture

Individual teacher to determine materials suitable for class.

### Working Knowledge:

Materials that may be used.

Sculpture forms—

- Representative
- Abstract
- Stylized
- Distorted
- Non-objective

Good design—recognition of it and working for it.

### Concepts:

Various materials and how to work with them.

Individual ways of working and seeing.

Development of good work habits.

### Suggested Projects:

Study sculptured representations—

- Actual objects
- Pictures
- Museum visits
- Pupils make picture file of examples

### Background and Appreciation:

Study work in stone by Michelangelo, William Zorach,

Henry Moore, Carl Milles, Naguchi.

Study reliefs on cathedrals of Europe.

Study work in metal by Brancusi, Giacometti, Lehm-brack.

Study work in clay by Jacob Epstein, Archipenko.

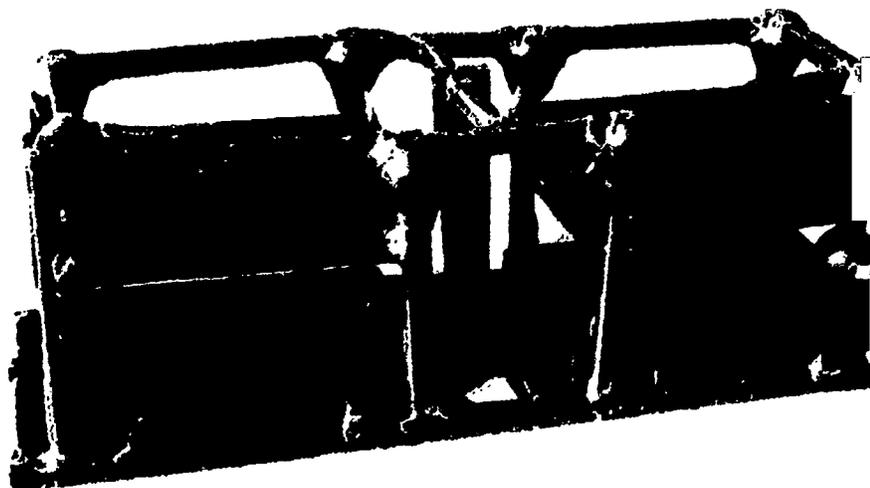
Study Greek, Roman, and Egyptian styles in various materials.

### Objectives:

- An understanding of line, texture, form, mass, space, and light as applied to three-dimensional work.
- An appreciation of the history of sculpture.

● The ability to transform inert stone, clay, or wood into a dynamic, lifelike creation through various processes.

● A respect for the possibilities and limitations of the material.



### Media:

Wire—

- Bend
- Twist
- Hammer
- Shape
- Notch

Plastic—

- Drill
- Form
- Cast
- Cut
- Rasp
- File
- Dye
- Cement

Metal—

- Shape
- Pierce
- Drill
- Cut
- Planish
- Solder

Wood—

- Drill
- Notch
- Gouge
- Split
- Carve
- Glue
- Dowel
- Nail

Clay—

- Model
- Press mold
- Incise
- Cast
- Cut
- Slab
- Throw

Glass—

- Break
- Cut
- Heat and melt
- Cement

## Sculpture—(Modeling and Carving)

### Objectives:

- To intensify powers of perception and to create in a rich visual dimension.
- To understand spatial organization.
- To relate knowledge of three-dimension design to architecture and industrial design.
- To be able to determine quality in three-dimension design and as consumers make intelligent selections.
- To encourage creativity with something that gives personal satisfaction.

### Materials:

#### Tools

- Drills
- Soldering iron
- Files
- Sandpaper
- Hammers
- Saws
- Chisels
- Mallets
- Knives
- Shears
- Pliers
- Screws
- Scissors
- Nails

#### Media

- Wire
- Metal
- Wood
- Clay
- Plastic
- Glass
- Plaster of Paris
- Solder
- Adhesives
- Liquid steel
- Foils
- Containers
- Armature wire
- Sculp metal



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*Use:*

- Modeling and carving materials—**  
 Papier maché  
 Sawdust and paste  
 Sawdust and plaster  
 Plaster of Paris  
 Cement  
 Plaster and Vermiculite  
 Sculp-metal  
 Asbestos, plaster, and cement  
 Sandstone  
 Marble  
 Wood

*Emphasis:*

*Tools*

- Drills  
 Drill bits  
 Hammer  
 Saw  
 Files  
 Knives  
 Sandpaper  
 Chisel  
 Mallet  
 Pliers  
 Steel wool

*Media*

- Dowels  
 Epoxy glue  
 Household cement  
 Contact cement  
 Iron glue  
 Nails and screws  
 Cork  
 Masonite  
 Pebbles and sand  
 Found objects  
 Various containers  
 Toothpicks  
 Straws  
 String  
 Armature wire  
 Solder

*Concepts:*

- Making the correct choice of material for using in a solution.  
 Importance of space relationships.  
 Proper use of tools.  
 Complete understanding of potential and limitations of material.  
 Construction problems (if any).  
 Finishing.

*Suggested Projects:*

- |              |                             |
|--------------|-----------------------------|
| Abstractions | Project combining materials |
| Figures      | Stables                     |
| Animals      | Semi-abstractions           |
| Fish         |                             |

*Suggested Projects:*

- A solid three-dimensional form which invites physical as well as visual inspection.  
 A construction with toothpicks or cardboard in which planes project into space at a various depth. Add color, texture, and perforations.  
 A composition with directional planes.  
 A transparent mass with string tensions over wire form.  
 A geometric relief with positive and negative shapes.  
 Interpretation of animal, human, or abstract figures.

**Plaster Sculpture**

*Working Knowledge:*

- The mixing, pouring, and carving of plaster.  
 The construction of bases and armatures to support plaster sculpture.  
 The use of Paris cloth to fill voids and establish fine details in plaster sculpture.

*Concepts:*

- On pre-planning of plaster sculpture for control of material and idea.  
 On rendering form with the simplicity necessary in use of the material.



On individual ways of seeing and working.  
Understanding the use and care of plaster tools and ruffles.

**Suggested Projects:**

Research and make detailed studies of ideas.  
Utilize various sculpture forms—non-objective, realistic, abstract, stylized.  
Notebook of ideas which might inspire project.  
Write a report on each project.

**Background and Appreciation:**

Class discussion on techniques as seen in reference material (actual and pictured).  
Contemporary audio-visual aids in various crafts fields.  
Demonstration by instructor.  
Study of the relationships of space, form, and texture in works of art.  
Field trips to craft shows and community areas of interest.  
Discussion of articles in current crafts periodicals.

**References:**

*The Techniques of Sculpture*, John Mills; Reinhold

*Sculpture for Beginners*, Henry Lion; Foster, Inc.  
*Sculpture Techniques in Clay, Wax, Slate*, Frank Ellison; Chilton Company.

**Periodicals:**

*Ceramics*, Professional Publications, Columbus, Ohio  
*Ceramic Horizons*, Lawhead Press, Inc., Ohio  
*Craft Horizons*, Craft Horizons, Inc., New York  
*Design*, Design Publishing Company, Columbus, Ohio  
*Handweaver and Craftsman*, Handweaver and Craftsman, Inc., New York  
*Interiors*, Whitney Publications, New York  
*School Arts*, Davis Publishers, Inc., Worcester, Mass.  
*American Artist*, *Art and Activities*, Educational Press Association of America, Kutztown, Pa.  
*Art Education*, Educational Press Association of America, Kutztown, Pa.  
*Art in America*, 635 Madison Ave., New York, N. Y.  
*Grade Teacher*, Educational Press Association of America, Kutztown, Pa.  
*Instructor*, Owens Publishing Company  
*Art News*, Newsweek, Inc., New York

## Sand Casting

**Objectives:**

- An increasing ability to unite form and function in a pleasing design.
- A respect for the historical background of the bas relief.
- An awareness and appreciation of contemporary work of this type.
- The ability to cooperate with others.

**Materials:**

Sand  
Plaster of Paris  
Wire mesh  
Wire support for hanging  
Wooden frame  
Exotic and common articles for making impression  
Patterns

**Study and Discuss:**

The historical significance of the bas relief.  
The use of bas relief as architectural decoration.

**Visit:**

Museums and other public places where examples of bas relief may be seen.



**Suggested Projects:**

A series of related panels to be hung in the school as a group project.  
An exterior or interior bas relief for a home.  
Small decorative panels with inspiration from nature, geometry, or man-made articles.

## Sand Casting



- To gain understanding about the various methods of making relief sculptures.
- To become aware of this craft in relationship to the great friezes of the past.
- To provide opportunity for group experience.

### Materials:

Wire	Simple wooden frame
Clean sand	Screen
Plaster of Paris	Water
Any type of common article for impressions	

### Concepts:

Design adaptable for material	Screening
Group project	Pressing design
Light and shadow effects (relief)	Casting
	Finishing

### Suggested Projects:

Panels (individual or groups)  
Murals (exterior or interior)  
Small relief (for individual enjoyment)

### Objectives:

- To learn about bas relief and work in a new way with interesting material.

### Experiences:

Casting simple and intricate forms  
Liquid rubber casting methods in combination with cradle molds  
Papier maché  
Lost wax method

### Concepts:

Methods of reproducing three-dimensional objects  
Various techniques for casting

### Materials:

<b>Tools</b>	<b>Media</b>	
Ruler	Chipboard	Masking tape
T-square	Common pins	Paint
Compass	Sticks	Wire
	Plaster of Paris	Papers
	Fabrics	Paste
	Glue	Plasticine
	Wood	Metal
	Glass	

### Working Knowledge:

Knowledge of positive and negative form, chemical reaction, energy, and heat.  
Release of air pressure.  
Solving the problem of undercuts.  
Use of dividers of shima.  
Limitation of the medium.  
Need for careful planning and thorough execution along with resourcefulness.

## Casting

### Suggested Projects:

Importance in developing resourcefulness, powers of observation and research techniques, and in learning to plan work within certain specifications. It provides the student with the opportunity to work with a multitude of materials.



Many students are delighted with the making of models and the results and will continue in this area, accepting increasingly difficult challenges. Models have an important use in the field of architecture and in community promotion and good models are in demand.

### References:

*Technique of Casting*, John Mills, Reinhold  
*Contemporary Sculpture Techniques*, John Baldwin, Reinhold.

- Absolute**—(Pure) art form, as manner of treatment. Positive, certain, final, or self-sufficient.
- Abstract**—An interrelation that expresses the essence of a figure, object, or place in lines, geometric forms or planes with little regard for its natural appearance.
- Academic**—Literary rather than the technical. Theoretical rather than practical.
- Accent**—The emphasis of dark or light in a drawing or of color in a painting.
- Acetone**—A solvent for plastics.
- Aesthetics**—Appreciative of, or responsive to, the beauty in art or nature.
- Alcohol**—A solvent for shellac (methanol or shellacol).
- Alla Prima**—A method by which a painting is usually completed in one sitting. Painting in a direct method.
- Annealing**—To toughen metal by heating the metal and gradually cooling.
- Appliqué**—Ornamentation of fabric. An ornament of one material is sewed or fastened to another material.
- Area**—An enclosed, limited, flat space.
- Armature**—Framework used to support modeling substances such as clay, papier maché, or plaster (usually made of wood, metal, or wire mesh).
- Asymmetric**—A balance in art composition based on an informal relationship.
- Atmosphere**—A relationship between parts which give them the effect of having all been seen under the same conditions.
- Balance**—The harmonious arrangement or adjustment of the weights amount, or values in a design to establish equilibrium.
- Balsa**—A strong, light wood for carving, construction, model building, or for collages. (Available in sheets, strips, or blocks.)
- Bas relief**—Low relief sculpture (the opposite of incised relief).
- Bat**—A flat, level plaster slab used to absorb moisture from wet clay; also used on the wheel to aid in throwing ceramic objects.
- Batik**—A method of creating colored designs on fabric by coating with wax those areas not to be dyed. (Term also used to describe the resist techniques.)
- Beeswax**—A wax secured from melted bone combs—used in combination with paraffin for batik.
- Bisque**—Unglazed pottery after first firing.
- Bit**—A tool used with a brace for drilling or boring.
- Brayer**—Rubber roller used in inking printing blocks (brayers are also available).
- Bright**—A brush with short hard bristles.
- Calligraphy**—Beautiful handwriting. The art of fine writing. Excellent in live-in art.
- Caricature**—A picture representation that ludicrously exaggerates or distorts characteristics or peculiar features.
- Cartoon**—A preliminary drawing, or an exaggerated drawing or reproduction done for a newspaper or magazine.
- Casein**—A heavy, water-soluble paint with a milk base.
- Casting**—A term used in many crafts, especially in ceramics and metal crafts. This is a shape that is the result of pouring some compound into a mold. The result will be a duplicate of the object from which the original mold was made.
- Ceramics**—A general term for the art of using clay bodies industrially, commercially, or for fine art work.
- Champlevé**—A process of enameling in which the design is cut out of a metal plate, leaving thin raised lines that create compartments to hold the enamel.
- Character**—Individuality.
- Chroma**—The relative brilliance or intensity of a color.
- Classical**—In accordance with ancient Roman and Greek models.
- Cloisonné**—A method of decorating metal, which consists of constructing a design on a metal or porcelain ground in little fences of metal and filling the spaces with various colored vitreous pastes (enamels).
- Collage**—Composition made by assembling, pasting, and gluing materials to a surface. (Can be combined with drawing, painting, and glazing).
- Colors**—Primary—Red, yellow, and blue—three basic hues which cannot be produced by a mixture of pigments.  
Secondary—Orange, green, purple; colors achieved by mixing primaries.  
Tertiary—Colors derived by mixing secondaries; sometimes called intermediate hues.
- Analogous**—Colors closely related, neighbors on the color wheel; sharply contrasting hues.
- Triad**—Colors equidistant from each other on the color wheel.
- Warm**—Colors usually associated with fire, sun, and earth: brown, red, orange.
- Cool**—Colors usually associated with water, sky, spring, and foliage: green, blue, turquoise.
- Complimentary**—colors which are exactly opposing physically.
- Contour**—A line drawing delineating the external characteristics or boundaries of a shape or form.
- Coping saw**—A small hand saw used to cut circular and irregular shapes in plywood, gypsum board, masonite, and heavy arboards.
- Counter enameling**—To enamel the back of an enameled piece.
- Crafts**—An area of art which emphasizes the making of objects of beauty by hand using varied materials.
- Design**—To outline, sketch, or plan a work of art in a skillful manner; also a work of art possessing all the principles of designs, rhythm, balance, proportion, harmony, unity, emphasis.
- Diptych**—An altar piece consisting of two hinged panels.
- Distortion**—Deliberate or intuitive alteration by the artist of a natural shape, form, or surface.
- Dry brush**—Controlled amount of water used in brush for strokes.
- Dry point**—An engraving made with a needle instead of a burin and without acid.
- Dye**—To color or stain; to change hue of a cloth or material; also the material used for staining.
- Dynamic**—Suggestive force or movement, not static.
- Empathy**—The projection of one's personality into the object of contemplation, a feeling of oneself into a work of art.
- Emboss**—To ornament a surface with raised work.
- Emphatic**—Intensity, force of expression, stress laid on a particular point in a work of art.
- Enamel**—(1) A type of paint or varnish that dries to a hard shiny finish and also is known for its quick drying ability.  
(2) A vitreous colored paste or powder that solidifies when fired; used on metals.
- Encaustic**—A method of painting with colored wax, which is fused with heat to fix the colors.
- Engobe**—Liquid clay or slip applied as color for surface decoration in ceramics.
- Engraving**—The process of incising or scratching into metal or other prepared surfaces with a sharp tool.
- Etching**—To produce a design on metal or glass by using a corrosive to make the lines. After applying ink to the surface, an impression may be taken.
- Fabric**—A cloth made by weaving, knitting, or felting fibers.
- Fettling knife**—A sharp, flexible-bladed knife similar to a paring knife.
- Fine arts**—The appreciation and the expression of the arts, such as dancing, drama, painting, sculpture, architecture, literature, and music.
- Firing**—Process of baking clay pieces in a kiln at high temperature until point of vitrification is reached.
- Fixative**—A commercial preparation in liquid or spray form used to protect easily smudged surfaces.
- Flat**—A brush with long-haired bristles.
- Flat color**—An even or uniform area of color.

**Flux**—Any substance or mixture, as silicates, limestones, and fluorite, used to promote fusion, especially the fusion of metals or minerals.

**Foil**—A metallic substance formed into very thin sheets by rolling and hammering.

**Forshortening**—The apparent visual compression or distortion of forms in a composition to indicate depth in space.

**Form**—Usually a sculptural or three-dimensional shape defined by its characteristic contour.

**Free form**—Forms having no definite shape, amoeboid forms.

**Frottage**—A design created by rubbing a grease or wax crayon on thin paper placed over objects with raised surface qualities such as reliefs, mosaics, leaves, bark, or seaweed.

**Functional**—Serving a function or useful purpose.

**Genre**—Compositions which emphasize themes of domestic and everyday events.

**Geometric forms**—Art forms based on basic shapes of circle, triangle, square, rectangle, semi-circle, etc.

**Gesso**—Prepared plaster mixed with a binding material and used as a ground for painting or for relief.

**Glaze**—A transparent or opaque surface finish applied to a ceramic or metalware.

**Glazing**—Putting a transparent coat of paint over a light underpainting.

**Glossy**—Having the quality of a lustrous, glazed, smooth, or sleek finish.

**Gouache**—A painting with opaque or body colors—non-transparent.

**Greenware**—Any clay piece that is still damp, or unfired and still requires drying.

**Grissille**—The painting of the subject in gray colors, used as an underpainting.

**Gouge**—A tool used in the block printing crafts. A gouge usually cuts a wide surface and has a beveled point.

**Grog**—Ground bisque ware.

**Grout**—A thin mortar used to fill up or finish the spaces between tesserae.

**Gum Arabic**—Gum used as a binder for clay or glaze; sometimes called tragacanth. Also used in copper enameling to adhere enamel to copper before firing.

**Harmony**—An element of design; the consistent, orderly, or pleasing arrangement of parts in a total pattern.

**Harness**—A device used in weaving. Used to hold the heddles.

**Hatching**—A system for building up tones or shadows by using a series of lines at various angles crosshatching.

**Hue**—Color.

**Impasto**—A particularly thick or heavy application of paint.

**Incising**—Cutting into a surface with a sharp instrument; a method of decorating on pottery or wood.

**Inkle loom**—A very simple loom which derives its name from the Scottish word, "inkle" which means a very narrow band or strip.

**Intaglio**—An incised figure or decoration depressed below the surface of a stone so that an impression from it yields an image in relief.

**Joint**—The place or part where two things or parts are joined so as to allow motion.

**Jeweler's saw**—Small, hand saw used for cutting small shapes from metal sheeting.

**Jute**—A plant fiber used in the making of burlap.

**Kinaesthetic**—Producing motion in a design or painting.

**Lacing**—Uniting materials by texture or by leather strips or cord passed through eyelet holes.

**Leno**—A term used in the weaving crafts. This is a technique of twisted pairs of warp threads being woven between the filling.

**Limoges**—Process of enameling metal in which the entire surface is covered in a contiguous or continuous manner.

**Line**—A mark made by a moving point.

**Line cutter**—A sharp bladed steel tool used for cutting linear designs in silk screen film.

**Linoleum**—A material used for block printing (battleship).

**Lithography**—A process of printing from a stone or prepared metal plate involving the use of a grease crayon and ink in making impressions of this composition.

**Loom**—A machine or apparatus for weaving yarn or thread.

**Macramé**—Designs made with coarsely knotted thread, yarn, etc.

**Maquette**—A rough miniature model used by sculptors as a guide for a larger, finished work.

**Masterpiece**—A term used to denote excellence at a high level, the best of an artist or craftsman.

**Mass**—The effect and degree of bulk, density, and weight of matter in space.

**Mat**—The surrounding area between the frame and the picture.

**Matte**—A dull surface.

**Medium (media)**—The vehicle or liquid with which a pigment is mixed. In a more general sense, the substance, material, or agency through which the artist expresses his idea, such as stone, metal, pigment, enamel, etc.

**Mobile**—An art construction or piece of sculpture, usually abstract which has the qualities of fluidity, movement, and versatility in response to external stimuli.

**Modeling**—In drawing or painting, gradations of light and shade reflected from the surfaces of matter in space, or the illusion of such gradations on a two-dimensional surface. In sculpture, built-up form effected by "adding to" rather than "subtracting from"; distinct from carving which subtracts to evolve sculptural form.

**Mold**—Hollow shape into which plastic material is pressed or poured; also the act of shaping material this way.

**Monochromatite**—One color; in color scheme, one color with all its tints and shades.

**Monogram**—A designed character consisting of two or more letters combined or interlaced; commonly, initials to be printed on textiles, paper, etc.

**Monoprint**—A type of print or engraving that can reproduce only one of its kind.

**Mosaic**—A design or composition formed by the planned juxtaposition of clay or glass tessera cemented in grout or mortar.

**Motif**—Distinctive design or figure that is developed and re-occurs in variation throughout an art work as the dominant idea or feature.

**Mural**—A wall painting which usually tells a story through a sequence or in episodic arrangement.

**Neutral**—Without definite color identification (black, white, or gray).

**Nib**—The point of a pen.

**Non-objective**—Pertaining to a painting or sculpture that has no subject matter; pure abstraction.

**Oblique**—Neither perpendicular nor parallel; designates sloping or slanting.

**Opaque**—Impenetrable to light; non-translucent.

**Origami**—Ancient art of Japanese paper folding.

**Overglaze**—Decoration applied after glaze fire.

**Palette**—A surface used for the purpose of mixing paints.

**Papier maché**—A substance made of paper pulp conditioned with sizing or paste.

**Pattern**—A decorative design using a repeated motif.

**Perspective**—A scheme or formula for representing, on one plane, distance and distant object.

**Pigment**—A coloring matter or dry substance, usually pulverized, which becomes a paint or ink when mixed with a liquid in which it is relatively insoluble.

**Plane**—A flat, continuous surface that does not change direction.

**Planishing**—Level, smooth pounding or rolling of metal.

**Planographic**—Printed from a flat surface, as a metal plate.

**Plaster of Paris**—A white powder (calcium sulphate) which when mixed with water forms a quick-setting casting or construction material.

**Plastic**—Plastics can be organic or synthetic. These materials can be molded.

**Plasticine**—Claylike material of an oily composition that dries more slowly than clay.

**Plique-a-jour**—Enameling process not backed by any metal.

**Polychromatic**—Changing of many colors.

**Polytych**—A picture, usually an altar piece in the form of more than three leaves hinged together.

**Portrait**—A pictorial representation of a person; usually depicts a face.

- Positive-negative**—Positive areas in a composition are definite forms and shapes; negative areas are the unoccupied or empty spaces.
- Potter's Wheel**—Revolving wheel, driven by hand, foot, or electric power, on which clay can be "thrown" to make variously shaped objects of clay.
- Pottery**—Objects of any kind that are made of earthenware and hardened by firing.
- Print**—Anything that leaves a printed impression on one surface from another surface.
- Proportion**—The mathematical relation or ratio of the parts of an object to each other and to the whole.
- Puppet**—An artificial figure with jointed limbs, moved by hand or stick or by strings. All marionettes are puppets, but all puppets are not necessarily marionettes.
- Pyrometer**—An electrical device used to measure the heat of a kiln.
- Raffia**—A palm fiber available in a wide range of colors.
- Realistic**—A mode of art characterized by representation of things as they really are; sometimes synonymous with photographic.
- Reed**—In a loom, the series of parallel strips that force the weft up to the web and separates the threads of the warp.
- Relief**—Projections of figures and forms from a flat surface.
- Relief printing**—Printing from a raised surface.
- Repetition**—The process of organizing a work of art by obvious repetition of the same lines, shapes, and colors and other forms.
- Repoussé**—Process of decorating metal by beating it into relief from the back, leaving the impression on the face.
- Rhythm**—An element of design that established a proper relationship and interdependence of parts to the artistic whole through regular recurrence of elements of motion.
- Rouge**—A red powder, ferric oxide, used in polishing metals.
- Roving**—Heavy cotton yarn.
- Sandcasting**—Method of producing a casting by pouring Plaster of Paris into sand molds.
- Saturation**—The greatest possible intensity of a color.
- Scale**—The mathematical relationship or ratio of the parts or totality of an object to its function or to the size of the original form.
- Scheme**—A color arrangement, as "color scheme"; the colors used in a particular work.
- Scoring**—The prearranged folding-lines of paper patterns in preparation for paper sculpture.
- Sculpture-in-the-round**—Free-standing forms, carved or modeled in three dimensions.
- Scumble**—A painting term referring to the softening of a color by the application of another opaque color over it.
- Sgraffito**—Decoration produced by scratching through a surface layer of plaster, glazing, etc., to reveal differently colored ground; used in jewelry.
- Shade**—Effect produced by adding black to the normal color.
- Shadow**—The dark area on a form which intercepts light.
- Shuttle**—Thread carrier on a loom.
- Silhouette**—A two-dimensional outline of an object in space.
- Sketch**—A brief study of a subject, a drawing complete in itself.
- Slip**—Liquid clay.
- Solder**—Any of many alloys. Used to fuse two pieces together.
- Solvent**—A liquid which dissolves or reduces the viscosity of other liquids. (Turpentine is a solvent for oil paint.)
- Space**—Three-dimensional. In art, a structure or form possessing thickness, or depth as well as length and breadth.
- Squeegee**—A hard piece of rubber braced in wooden handle and used to force ink or paint through a silk screen for printing.
- Stabile**—A sculptural construction, usually abstract in part, that remains in a fixed position.
- Stained Glass**—Glass colored by various processes, often used in church windows.
- Stencil**—A thin sheet of cardboard, paper, metal, or film cut through in such a way as to reproduce a design when color is rubbed over it.
- Still life**—A picture or picture set-up representing inanimate objects, as flowers, fruit, etc.
- Stipple**—To paint, engrave, or draw by means of dots or small touches.
- Stitchery**—The designing in a fabric or material with thread; a form of sewing or embroidery.
- Structure**—Organization, composition, as "art structure"; formal organization.
- Style**—The quality that gives distinctive excellence to art. Also a current group of forms united by reciprocal fitness and expressive of a civilization, of a people, or of an individual.
- Stylize**—Artist individual distortion.
- Subordination**—The placement of certain objects, shapes, and colors in a lower order or rank of importance in a design.
- Symbol**—A sign or object that stands for or suggests something else by reason of relationship, association, convention, or accidental but not intentional resemblance.
- Symmetry**—Correspondence in size, shape, and relative position, of the parts that are on opposite sides of a dividing line or median plane.
- Tactile**—Refers to sense of touch.
- Technique**—Method of procedure involved in transforming matter or artistic media into a work of art.
- Tempera**—Term used interchangeably with the commercial product poster paint.
- Terra cotta**—Variable color of hard-baked clay, red to reddish yellow, and of high saturation. Loosely means unglazed clay.
- Tessera**—Small pieces of glass or stone used in making mosaics.
- Textile**—Any material that is woven.
- Texture**—The sensuous or tangible quality of a surface or the simulation of such qualities in drawing, painting, or sculpture.
- Three-dimensional**—Pertaining to any design or sculptural work that has length, width, and depth.
- Tint**—The lighter color value.
- Tone**—The value and chroma quality of hue as used in painting.
- Tooling**—The designing or ornamentation of leather or metallic materials by means of compressing or pushing out with a suitable tool.
- Tooth**—The textural surface quality of the white canvas or paper, varying from rough to smooth.
- Transition**—The process of softening opposition; e. g., the use of a diagram movement between a horizontal and vertical image.
- Translucent**—Semi-opaque; a design or painting that has rays of light transmitted through it in such a way as to show clearly bodies behind or beyond it in full outline.
- Tripoli**—Compound used for polishing scratches in metal. A dustlike silica.
- Triptych**—A painting in the form of three leaves or panels, hinged together.
- Tsantung**—Used for applying hot wax to a fabric in batik process.
- Tusche**—A lithographic and silk screen liquid used for stippling, penwork, and filling in solids on silk screen stencils.
- Two-dimensional**—Pertaining to design that has only the dimensions of length and width; commonly known as "flat pattern."
- Underglaze**—Pottery colors used for decoration; these colors are flat.
- Unity**—The oneness or wholeness of a work of art.
- Value**—An attribute of color, its lightness or darkness; for example, the values of red would range from pink to maroon.
- Vitrification**—The process of becoming glass-like, as in a glaze, or nonporous, as in ceramics.
- Warp**—The lengthwise (vertical) threads in which a loom is strung.
- Wash**—The application of color in a thin fluid manner. Diluted pigment.
- Wedging**—A method of preparing clay by kneading it to expel air pockets and make it constantly plastic.
- Woodcut**—A design engraved upon a block of wood in such a way that the background is cut away to a slight depth and only the lines remaining form the design; also a printing impression made from such a block.
- Woof**—Same as weft. The threads that run horizontally in the process of weaving.

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### **Recommended Teaching Aids**

For information concerning recommended books, films, visual aids, or professional lectures and demonstrators, refer to the following publications:

- Recommended Art Books for Kansas Schools, Supplements I, II, III*
- Art Listings of Producers and Distributors of Audio Visual Materials*
- A Listing of Lecturers and Demonstrators in the Visual Arts*

All of the above publications are available through the office of:

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