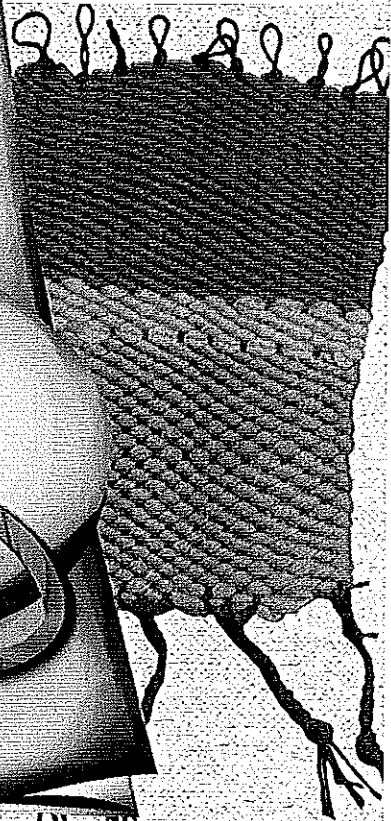
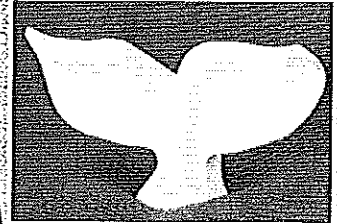
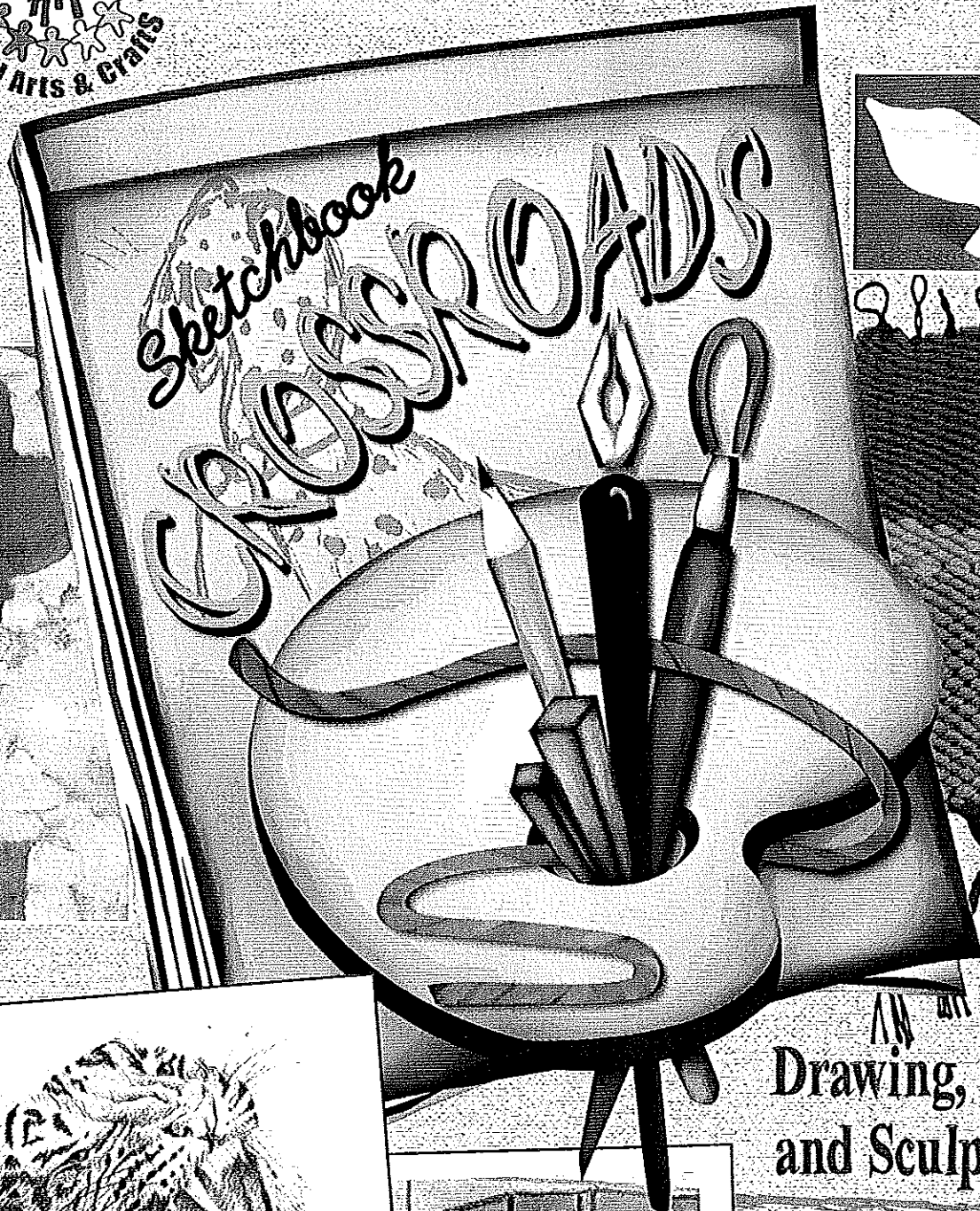
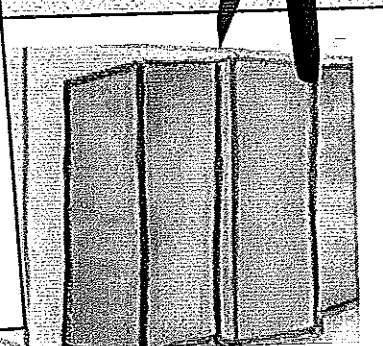


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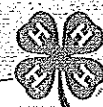


Drawing, Fiber and Sculpture

Youth Art
Activities with
Helper Information



Name _____



REVIEWED & RECOMMENDED
National 4-H Curriculum

Welcome to Sketchbook Crossroads! This activity guide is for you, plus packed with information for the art helper. Have fun exploring. There are three media, **drawing**, **fiber arts** and **sculpting** for you to choose from to develop your artistic skills and talents. All the activities focus on teaching the elements and principles of design and encouraging the development of skills for a lifetime. The Brain Joggers test your problem solving ability. You may connect locally through artistic community service or service learning opportunities. And, you may test your knowledge of art through cultural and historical art experiences that are interwoven throughout the activities. The learning indicators at the end of each activity help you evaluate the learning process.

Art Helpers are teens or adults who assist youth with the activities. Read the Artist Notes at the beginning of each activity to become familiar with the background, history, culture, science, safety and techniques of the activity. Explore the Visual Arts Project Online to enhance your art experience. Read about the experiential learning model and life skill development on pages two and three. Discuss the Reflect and Apply questions in each activity to enhance your overall art experience.

National Standards for Art Education

Developed by the Consortium of National Arts Education Associations under guidance of the National Committee for Standards in the Arts through a grant from the U.S. Department of Education, the National Endowment for the Arts and the National Endowment for the Humanities, 1994.

Visual Arts Content Standards provide program goals for all grade levels:

- Understanding and applying media, techniques, and processes
- Using knowledge of structures and functions
- Choosing and evaluating a range of subject matter, symbols, and ideas
- Understanding the visual arts in relation to history and culture
- Reflecting upon and assessing the characteristics and merits of their work and the work of others
- Making connections between visual arts and other disciplines



Explore more at

www.4-hcurriculum.org

National 4-H Curriculum

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Look for these
other guides in
the Visual Arts
and Craft Series



*A Palette of Fun
with Arts & Crafts*
BU-07597



*Portfolio
Pathways*
BU-08141



Sketchbook Crossroads

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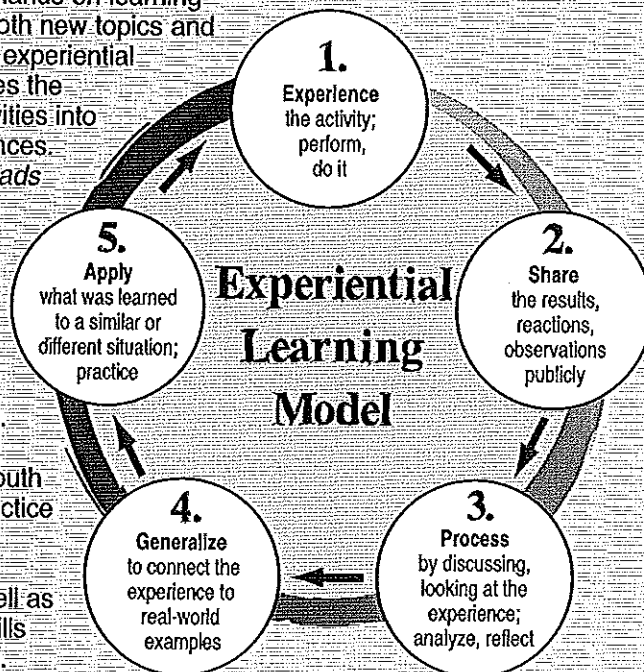
About This Book

The 4-H Youth Development Program promotes learning-by-doing and focuses on developing skills for a lifetime. Each activity begins with Your Challenge, a description of the activity followed by Create or exploration steps. Reflect questions give you time to stop and think about the creative process. Imagine activities and questions build upon the learning process, providing further art exploration and life skill development. In some activities Create, Reflect and Imagine are followed by ways of simplifying or enhancing the activity.

Experiential Learning

Experiential learning takes place when a youth is involved in an activity, looks back at it critically, determines what was useful or important to remember, and uses this information to perform another activity. 4-H uses this hand-on learning approach to teach new topics and life skills. 4-H activities use a hands-on learning approach to teach both new topics and life skills. A five-step experiential learning model guides the process turning activities into fun learning experiences.

Sketchbook Crossroads combines two of the five steps into a three-step model of Do, Reflect, and Apply. In the art activities the steps are labeled Create, Reflect, and Imagine. By following the experiential model youth learn new topics, practice the elements and principles of design (content skills), as well as learn and develop skills that will last a lifetime.



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annuals" © 1983 John Wiley & Sons, Inc. Reprinted with permission of John Wiley & Sons, Inc.



Experience - Do

Create This is the exploring part of the activity that engages you in the creative process. This is your opportunity to learn-by-doing before being told or shown how to learn experientially. Your art helper will assist you by asking questions and suggesting resources and locating supplies.



Share & Process

Reflect Using the reflection questions the youth describe what happened in each art activity. It allows them to process their art experiences and to analyze and reflect upon what happened during the activity. This process becomes the beginning of critiquing their artwork.

Critiquing one's artwork is a valuable skill. It helps the artist grow in developing compositions, techniques and skills. Critiquing builds a sense of appreciation and understanding for art. Learning to assess one's artwork builds the life skills, which can then be transferred to other learning situations.

Providing an experience alone does not create "experiential learning." The activity comes first. The learning comes from the thoughts and ideas created as a result of the experience. This is a "learn by doing" or experiential process. Each step in the process needs to be followed to create a total learning experience.



Explore more at
www.4-hcurriculum.org
National 4-H Curriculum



Generalize & Apply

The Imagine questions allow the youth to generalize and apply the art techniques learned in each activity. Having youth generalize from their experiences allows them to form principles or guidelines that can be used in real life situations. This is the beginning of relating the experience to life skills. Application of the experience focuses the youth on their accomplishments and how they can take the skills and techniques learned and apply them to a different situation. Application can lead back to creating. With art it is a good idea to repeat the art activity more than once and allow the youth to build on each new skill learned.

Skills for a Lifetime

Sketchbook Crossroads focuses on developing skills for a lifetime. A skill is a learned ability to do something well. Life skills are abilities that individuals learn which help them to be successful in living a productive and satisfying life. *Sketchbook Crossroads* uses the Targeting Life Skill Model and focuses on four life skills, one in each area of Thinking, Being, Relating, and Working.

Using the *Reflect* and *Imagine* questions and checking the Learning Indicators in each activity helps the youth and art helper assess if the youth are the developing life skills.

Being

Self-esteem or Positive identity – Pride in oneself; valuing oneself; understanding one's abilities, strengths, and limitations; realistic assessment.

Working

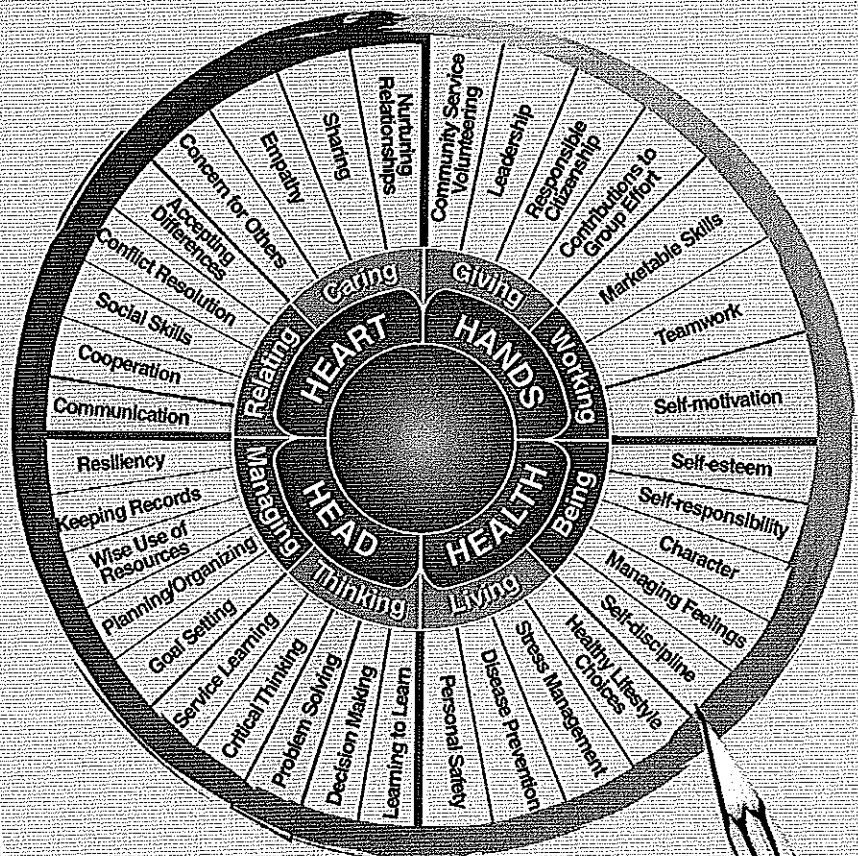
Self-motivation – Able to make the effort needed to carry out a task or plan; inspiring oneself to take action.

Relating

Communicating – Exchange of thoughts, information, or messages between individuals; sending and receiving information using speech, writing, gestures, and artistic expression.

Thinking

Problem solving – Clearly identifying a problem and a plan of action for resolution of the problem.



Targeting Life Skills Model by Patricia A. Hendricks, Ph.D.,
Iowa State University Extension, 1998.

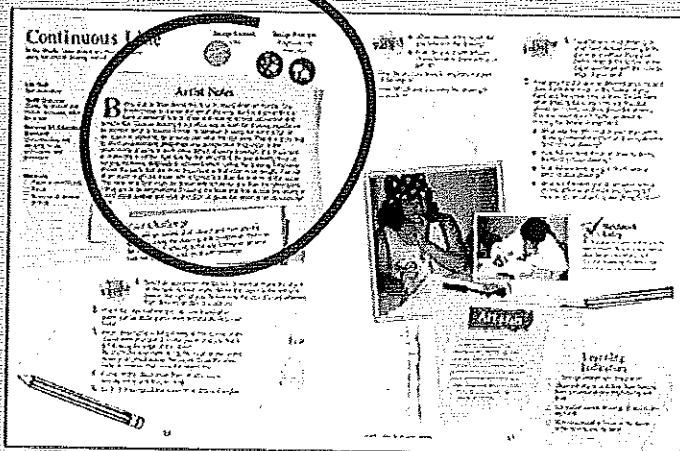
Life Skills and Youth Development Outcomes

4-H Youth Development promotes experiences that assist youth to grow and develop. Experiences in *Sketchbook Crossroads* target four developmental outcomes for youth, which are tied to a life skill. Each activity lists one developmental outcome. Use the outcome to evaluate the success of the activity.

- **Positive Identity (LS)** – Identity development - Develops a healthy sense of self
- **Communicating (LS)** – Social Competency - Integrates feelings, thoughts and actions into social competence
- **Self-motivation (LS)** – Self-determined - Thinks for oneself and makes necessary effort for action
- **Problem solving (LS)** – Cognitive Competency - Uses cognitive abilities and processes to find solutions

Artist Notes

Each activity begins with Artist Notes, information and background for you and the art helper. Artist's Notes provide cultural, historical or scientific information, strategies and tips for assisting you in exploring the activity. You will be most successful and prepared when you are familiar with the life skill, elements and principle of design, and background information provided in each activity. The art skills are the elements and principles of design listed in each activity.



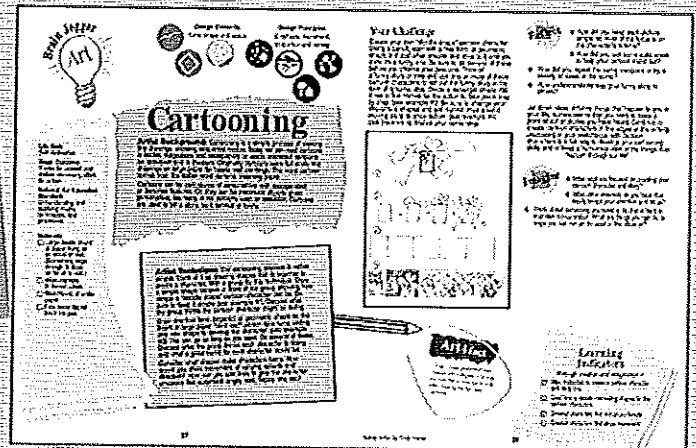
Art-i-fact

Each unit has facts and information relating to culture, history, science and art. These "art-i-facts" can be used to enhance the art experience.



Brain Joggers

Artists are creative inventors. Through experimentation they create new techniques that have started more than one art movement. The Brain Jogger activity in each unit provides information and an art challenge. It starts with techniques used by a famous artist and challenges you to give it a try.



Cultural Celebration

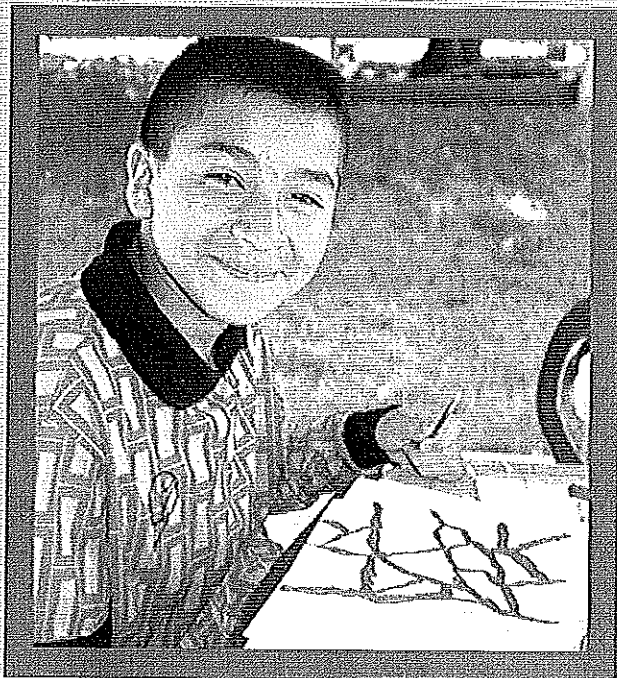
The Cultural Celebration in each unit provides either information or an activity about an art style or technique from a specific culture or historical period. Cultural Celebrations open the door to learning and understanding about customs, traditions and heritage of many people around the globe. It is a good way to expand what you know about yourself and your neighbors next door or half a world away.

Learning Indicators

At the end of each activity there is a list of learning indicators that describe what you did. These are things you would be able to observe to see if you are learning the intended outcomes of the activities. Use these indicators and add your own questions to help you reflect on what you learned and apply that knowledge to what you may do at home, at school or with friends.

The Art of Critiquing

Art criticism is all about appreciation and understanding. It takes practice, requiring the viewer to slow down and to look closely at the artwork. Developing a discerning eye and perception helps the viewer and artist become more aware of techniques and skills.



Start critiquing your artwork by answering the questions in the *Reflect* and *Imagine* sections of each activity in your sketchbook. And, whether you critique your artwork or that of others, ask these additional questions:

- Who created the artwork?
- What do you see in the artwork? What is your first impression?
- What materials and techniques were used?
- What elements of design were used in the artwork?
- How do the elements work together to create the principles of design?
- Why was the subject matter selected?
- What is being communicated?
- How does the artwork relate to a point in time?
- Is the artwork successful, does it work?

When selecting artwork for display include only your best work, that which clearly demonstrates the elements and principles of design. You can learn a great deal about critiquing your work from teachers, other artists, family and judges for fairs and art shows.

Service to Community

Community Service or service learning is a way for you to give back to the community and share your experiences with others. Schools and organizations may require you to complete these types of activities. Art provides many ways to fulfill the community experiences.

Community Service is volunteering; working to benefit the community. You become a community resource by providing services. It also provides opportunities for you to explore your role as a citizen by helping the community meet educational, public safety, human and environmental needs.

Service learning encourages students to learn and develop through active participation in thoughtfully organized services that are conducted in and meet the needs of community. Service learning is integrated into the curriculum, providing youth with real life situations to use their skills and abilities.

It extends the learning into the community fostering a sense of caring about others. (National and Community Service Trust Act of 1993)

To complete a community service or service learning experience you might:

- Volunteer as an art museum docent
- Teach art activities at an after school or summer program
- Build your own project—Plan and Implement an action project that focuses on art such as teaching an on-going art workshop or working with a group to create a public art project.
- Done in a day—Do an art project for an organization that can be done in a short period of time such as a day. For example create posters, banners or flyers for a community event.



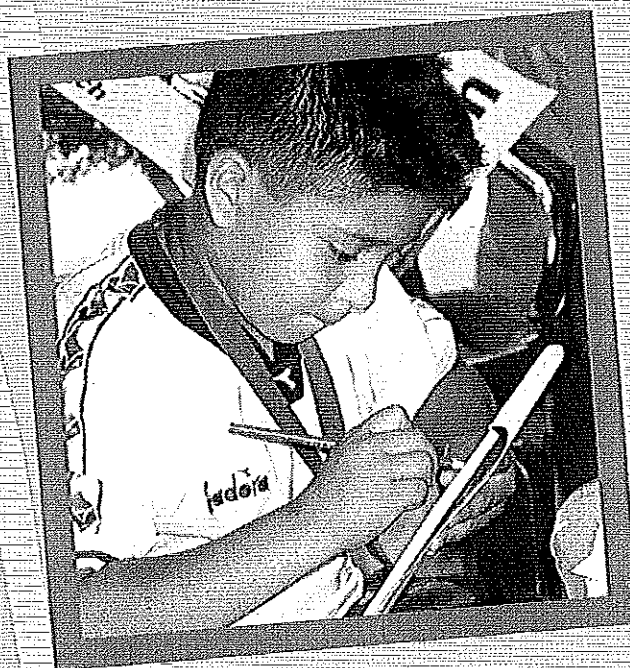
Character Issues

There are many ethical issues involved in the production and marketing of artwork. You would not want someone to use your ideas or likeness for their own benefit without some consideration. Here are some concepts to consider:

- All artwork is essentially the ownership of the artist. The artist can give away or sell his or her rights to the art through agreements or understanding. The artist may also protect his or her work by obtaining a "copyright". Work that is "copyrighted" will have a © shown somewhere. Graphic artists may protect their logos with ® or ™. In these cases there are specific rules about who may use the image and how the image can be used. They may also limit alterations in the image including specific colors or image sizes.
- After 70+ years, non-copyrighted art is considered to be in the "public domain" depending on the work.
- Clip art is an example of art created by an artist, but the rights to the artwork are sold with the purchase of the software or pattern books. These rights are limited to "reasonable use" of the artwork. You cannot make copies of this artwork to give to others. Some "pattern" companies limit the number of times a pattern can be used so you cannot use the pattern for mass production of articles based on that pattern and the instructions.
- If you want to use the image of someone in your artwork, you will need to get their permission to use their image (photographic or artistic). If they are under 18 years of age, you will also need their parent's or guardian's permission as well.
- Even if you have permission for the likeness of the person or a photograph of a piece of art, you will need to give credit or acknowledgements in your text.

Reflective Sketchbook

Keeping a sketchbook of your work is fun. It may be a messy, funky, strange, unique sketchbook, one where you write notes about the drawings, scribble things out, do some humorous or weird doodles and basically "be yourself". You may overlap sketches, leave things half undone and do drawings at any angle. Keeping a sketchbook is an important part of being an artist. There is no need to worry if no one else ever sees it; it's for you. Later on, you can return to your sketchbook when looking for artistic ideas. It is a great place to record your answers to the Reflect and Imagine questions in each activity.

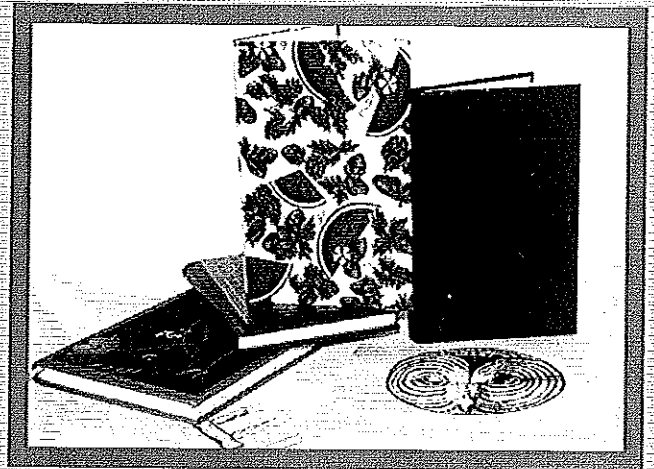


Sketchbooks are as varied as the artists who keep them. Most artists keep sketchbooks in which they experiment with ideas and collect drawings of their environment. Sketchbooks are like visual diaries for artists. Artists often use them for planning and developing their work. Urban-scene painter **Reginald Marsh** cut and bound scraps of paper to fit the size of his coat pocket. Avante-garde advocate **John Graham** snatched moments in a busy career to doodle in a leather bound diary.

- The most famous artist sketchbooks are those of **Leonardo da Vinci**. His sketchbooks are filled with drawings, diagrams and written notes of things he saw and ideas he came up with.
- **Pablo Picasso** produced 178 sketchbooks in his lifetime. He often used his sketchbooks to explore themes and make compositional studies until he found the right idea and subject for a larger painting on canvas.
- **Henry Moore**, a British sculptor, filled one of his sketchbooks with drawings of sheep that often wandered by the window outside his studio.

Making a Sketchbook

Sketchbooks are available in many sizes from arts and craft stores and bookstores. However, here is a simple way to make a sketchbook. Many types and weight of paper may be used. This simple sketchbook is made from sheets of legal-size paper (8.5" x 14") and scraps of fabric. Follow these steps:



Materials:

- Four sheets of legal-size paper
- Cardboard
- Scraps of fabric
- Fabric glue or spray adhesive
- Sewing machine with heavy duty needle and thread

Step 1 – Fold four sheets of legal-size paper in half (7" x 8.5").

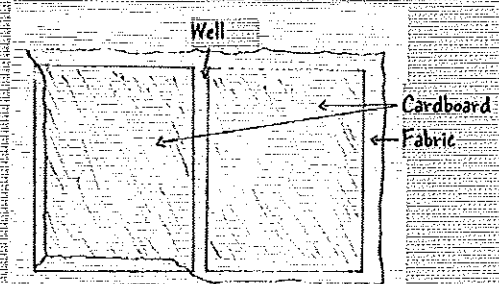
Step 2 – Cut two pieces of cardboard 7" x 9". Cut two pieces of fabric, one 16.5" x 10.5" and the second one 8" x 13.5". The larger piece will cover the outside of the sketchbook and wrap around the edges to the inside. The smaller piece will lie across the inside of the sketchbook covering the cardboard.

Step 3 – Lay the large piece of fabric face down. Spread fabric glue or spray adhesive across the fabric. Position the two pieces of cardboard on the glue side of the fabric leaving 0.5" between them. This creates a well. Pull the fabric around the edges of the cardboard and glue.

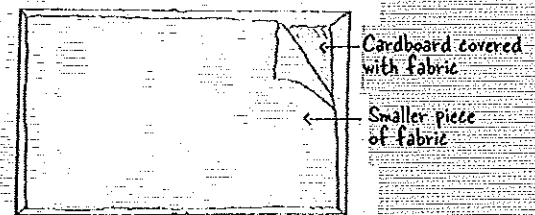
Step 4 – Add the smaller piece of fabric to cover the remaining cardboard.

Step 5 – Place the paper over the center of the covered cardboard with the center fold in the well.

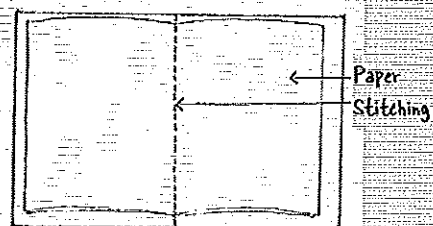
Step 6 – Using a heavy duty needle, sew the length of the well through the sheets of paper. Tie off the thread ends. Another option to sewing the book together is to carefully staple through the paper and fabric to bind the book.



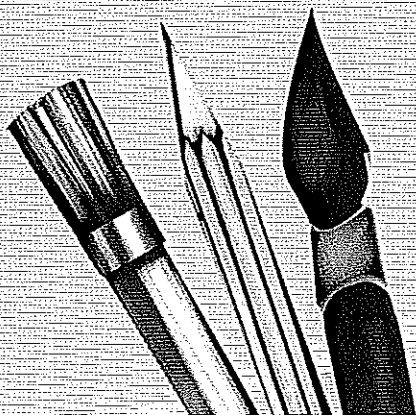
Step 3



Step 4



Step 6



Elements & Principles of Design

Art is created through experimentation using a variety of tools and organizational strategies. The tools of art are not just brushes, paints and palettes, but rather elements of design. The elements of design are **color** and **value**, **form**, **line**, **shape**, **space**, and **texture**. How the tools or elements are used or organized creates the principles of design. Design principles are **balance**, **emphasis**, **movement**, **pattern**, **proportion**, **repetition**, **rhythm**, **unity** and **variety**.

Each activity highlights at least one element and principle of design. Others may be incorporated into the artwork, but it is easiest to develop skills when focusing on fewer tools and organization. Think of the elements and principles of design as the content skills for each activity.



Color and value

Colors are light waves reflected and absorbed by objects. Hues are the names of colors. Primary hues are red, yellow and blue. Secondary hues are green, orange, and violet. Tertiary hues are the mixing of a primary with a secondary hue. Complementary hues are positioned across from each other on the color wheel. Analogous hues sit next to each other on the wheel.

Value refers to the lightness or darkness of a color. By adding white to a hue, a tint is produced; adding black produces a shade.



Form

Three-dimensional shapes having length, width and depth are forms. They may be spheres, cylinders, boxes, prisms or organic.



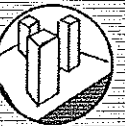
Line

Lines are marks that have length and direction. Line quality is expressed by thickness, thinness, wavy curly, jagged, straight, etc.



Shape

Shapes are flat and two-dimensional. They may be circles, squares, triangles, organic, etc.



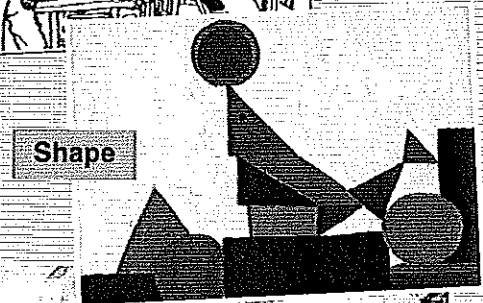
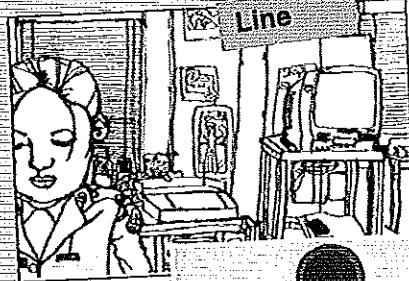
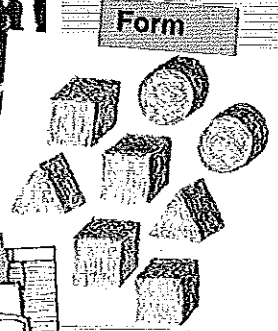
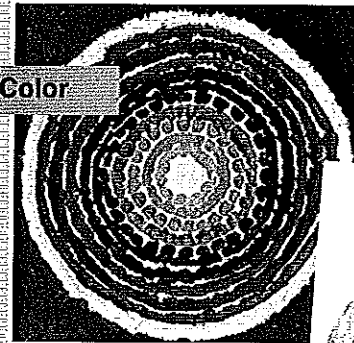
Space

Space is the area between and around objects. The object fills positive space while negative space surrounds the object. Space is created in a two-dimensional artwork by using perspective, overlapping, and color and value, creating the appearance of depth or distance.



Texture

The surface appearance or feel is texture, which may be smooth, rough, prickly, fuzzy, hard, etc. Texture is created in both two and three-dimensional art using a variety of techniques and materials.



Principles



Balance

Balance is the equal visual weight in artwork. When both sides of an artwork are mirror images it is symmetrical balance; when one side is different from the other side, the artwork has asymmetric balance. Radial symmetry is achieved when the design radiates out from the center of the artwork.



Emphasis

Emphasis calls attention to a point in the artwork. The point of interest is usually in contrast to the surrounding space and is achieved by using several elements.



Movement

Movement is the path the viewer's eye takes through the artwork, often to a focal area. It can be directed along lines, edges, shapes and color. Movement is closely tied to rhythm.



Pattern

The repeating of an object or symbol throughout the artwork creates a pattern. The repetition may be organized or random.



Proportion

When all parts of an artwork — size, amount and location, fit well together the artwork has proportion. Proportion is important and usually thought of when creating living figures.



Repetition

Repetition works with pattern to make the artwork seem active. Repetition of elements creates harmony within the artwork.



Rhythm

Repeating one or more elements to create organized movement is rhythm. Rhythm creates a mood or feeling in the artwork.



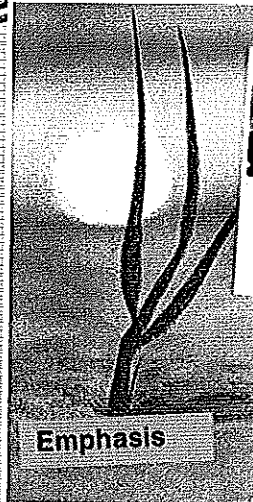
Unity

Unity is the feeling of harmony in an artwork; all parts belong together.

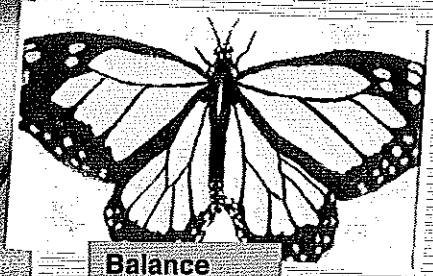


Variety

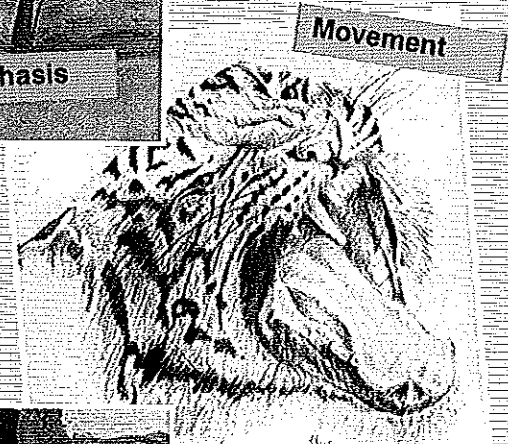
Several elements work together to create variety, which holds the viewer's attention.



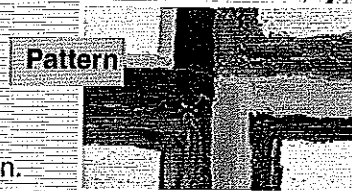
Emphasis



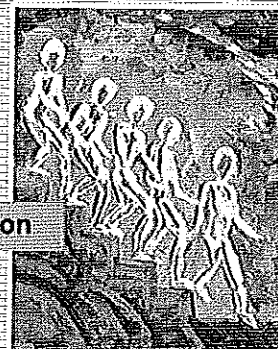
Balance



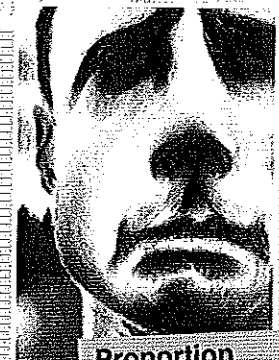
Movement



Pattern



Repetition



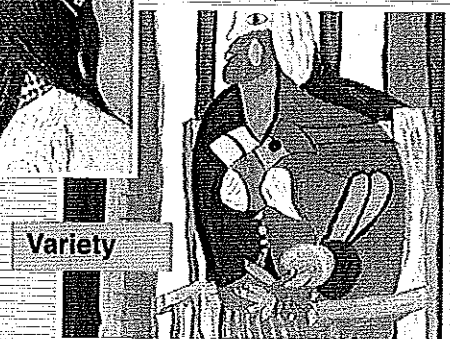
Proportion



Unity



Rhythm



Variety

Unit 1

Drawing

Continuous Line, Contour Drawing
Make the Marks, Shading
Finding Space in Perspective,
Perspective Drawing
Drawing in the Round, Paper Choices
Blending Lines, Colored Pencils
Lines of Expression, Pen & Ink
Characters with Style, Calligraphy
Brian Jagger – Cartooning

The first time you pick up a pencil or crayon and make a mark with it, that mark says, "I am," "I exist," and "I can affect my environment; leave my mark on the world." That's powerful. As you continue mark-making (drawing) experiences, you use those drawings to communicate; to tell a story, idea or feeling; to experiment.

At some point in your drawing you seek to have your drawings reflect the real world, draw real people and make your picture look like the real scene outside your window. Drawing involves learning a set of skills. It requires seeing – careful observation of what we want to draw. Some people draw more easily than others and seem to be able to draw without even thinking. It's kind of like reading. Some people have to work at reading and others read almost effortlessly. Whether you have to work at it or not, reading is a set of skills that you can learn just like drawing is a set of skills you can learn. The activities in this unit can help you learn to draw realistically, draw to communicate and draw to experiment.

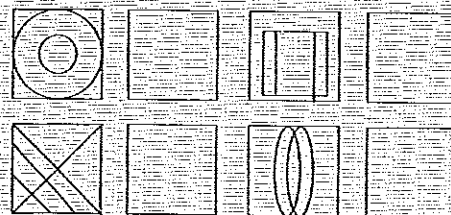
Sketchbook

Keep all of your drawings, the good ones and the experiments. This is a great way to see how your drawing skill has improved. A sketchbook keeps your experimental drawings together. Sketches are usually quick drawings made to record an idea or try out an arrangement of design elements. Keep each sketch to remember the ideas you were thinking about. An idea that you discard this time might be just the right one next time. When you review your sketches, make choices – use the whole idea or just a part of it, trace part of this idea and part of another idea and combine them with a new idea.

Learning to Draw

Sometimes seeing a line is hard to do. In nature there are no lines but artists use line to record what they see. Look carefully at what you want to draw. Find the edges because they are what you first put on your paper. The inside details usually are added later. Let your eye tell your mind what to do – "There's a long, straight line beside a shorter straight line."

Here are four sets of boxes. In each set, look at the shape and lines you see in the box on the left. Draw it in the box on the right.



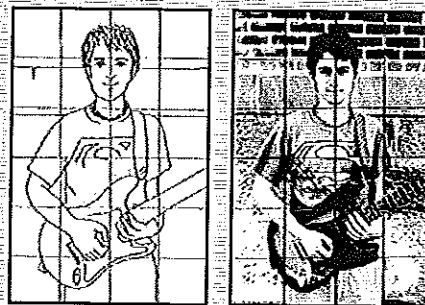
Next try line drawings of things you recognize – a simple bird, a doghouse, a pair of scissors. Try to find line drawings you can look at and draw. This is skill-building work, not creative work. Just copy line drawings long enough to convince yourself you can draw. It's much more fun drawing your own idea than drawing someone else's idea.



Now, look at some photographs. Find images in magazine pictures and try drawing them. Remember that you are looking for shapes and lines in relationship to each other. Listen to your eyes.

The next level of difficulty is drawing from real life. Now you need to look at an object in all of its three dimensions (height, width and depth) and try to record what you see on paper. It can be confusing. Try taking a photo of what you want to draw and then draw by looking at the photo. This helps you see the relationships between spaces and where on the page each part fits.

Drawing grid lines on your photo and on your drawing paper helps you see where to locate each part of the picture. You may even want to turn your photo and your drawing paper upside down. This helps your eye focus on shapes instead of sending messages to your brain to identify the thing you are drawing.



Drawing Tools

There are many drawing tools to use. Any material that will make a mark on paper could be a drawing tool. Materials that take marks off paper (erasers) are also drawing tools when used to remove specific areas.

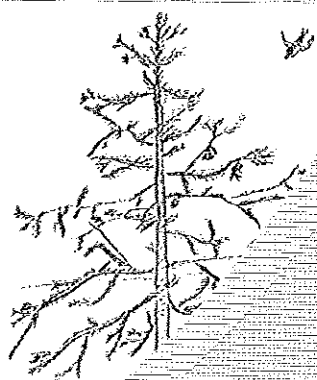
Some materials to try:

drawing pencils	charcoal pencils	pastels	gum eraser
graphite stick	markers	oil crayon	rubber eraser
colored pencils	crayon	Pen and ink	kneadable eraser
watercolor pencils	melted wax	colored glue	electric-powered eraser

Drawing Surfaces

There are also many surfaces for drawing. White, very flat paper is only one choice. There are hundreds of types of white and colored papers to try. You can also draw on smooth wood. Experiment with a variety of papers and other non-paper surfaces.

The fiber content and surface of paper will interact with the drawing tool to create a unique look. The roughness, or **tooth**, of the paper finish will determine the absorption of the ink, paint or water. Paper may be **acid-free**, meaning it lacks acid producing chemicals and will last longer. **Bond paper**



Doodle here ...

tends to be a high-grade paper with a smooth surface. It is used for business and photocopying. Running paper through very hot rollers compressing the surface to a smooth finish makes **hot pressed paper**. Sometimes fine clay is added, making a smooth absorbent surface. **Cold pressed** paper has a mildly textured surface. Passing the paper through unheated rollers processes it. Cold pressed paper surface allows for wicking (slight spreading) of ink and water. **Rag paper** is made from non-wood fibers such as cotton and linen (flax). A rag paper will have 25–100% fiber pulp. **Rice paper** isn't really made from rice. It refers to lightweight translucent papers.

Experiment by drawing on colored paper, especially black. Use shades of white or cream colored pencils to create rich images. Rather than using shades of gray to black leaving white space as highlights, gently color in the middle and high values using white shades. Artists rarely use black pigment and so is the case when drawing on black paper. Add dark hues in shadow areas to help the artwork really "pop". If the black paper has a grain or linear texture, make sure it is straight before beginning. If the grain shows and is slightly tilted it may affect the overall appearance of the finished piece.

Community Connection

Leonardo da Vinci (1454–1519) was an Italian Renaissance illustrator, painter, scientist, architect and engineer. He used his amazing skills of observation and his incredible artistic talent to capture most every thing around him. He was one of the first during the Renaissance to take a scientific approach towards understanding how our world works. He constantly recorded his observations in numerous sketchbooks. His sketchbooks are filled with his drawing on animals, the human body, inventions including gears and pulleys, bridges, toys, machines, and canal systems. While serving as an apprentice in Florence, da Vinci learned how to use linear perspective, a mathematical system creating the illusion of space and distance on a flat surface. This technique along with his uncanny ability to use colors, made his paintings life-like.



Explore more at
www.4-hcurriculum.org
 National 4-H Curriculum

Continuous Line

In the Studio: Draw objects and then your hand using the contour drawing method.

Life Skill:
Self-motivation

Youth Outcome:
Thinks for oneself and makes necessary effort for action

National Art Education Standard:
Understanding and applying media, techniques, and processes

Materials:
☐ Paper or sketchbook
☐ Pencil
☐ Selection of utensils or tools

Design Element:

Line



Design Principle:

Emphasis and Proportion



Artist Notes – Contour Drawing

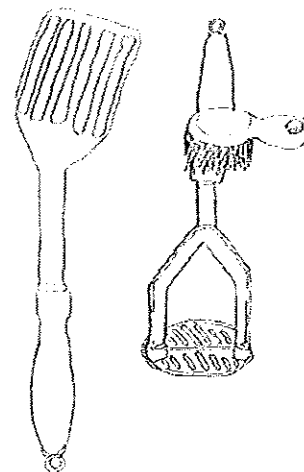
Being able to draw opens the door to many other art media. One doesn't have to master the art of drawing, but it is a good idea to have a sense of how to draw and how to achieve proportion and perspective. Contour drawing is a perfect way to start the drawing experience, to express art in a realistic format. In contour drawing the outer edge of an object is captured, by drawing just what the eye sees. This is a good way to start understanding proportion and perspective. Proportion is the relationship of parts to each other. When drawing a person, it is important to make the head the right size for the shoulders. By just drawing lines of varying thickness, emphasis is achieved which unifies the drawing. Emphasis shows the parts that are more important or that have more weight. The top of an apple might be drawn with a lighter line than the bottom of the apple. The eyes on a face might be drawn with a heavier line than the other parts if they are to be emphasized. Drawing the lines that flow across the object is called **cross contour** and adds definition or gives the object three-dimensional form.

Your Challenge

Start with an outline of an object and then add the details, building the drawing until completion. Don't be discouraged. Practicing is the key. Leonardo da Vinci had many sketchbooks filled with drawings.

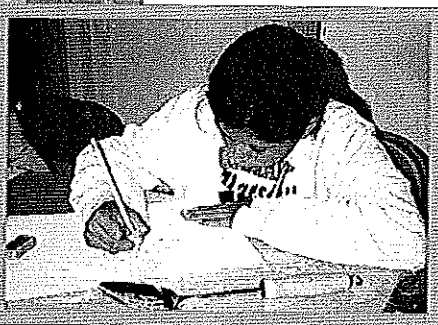
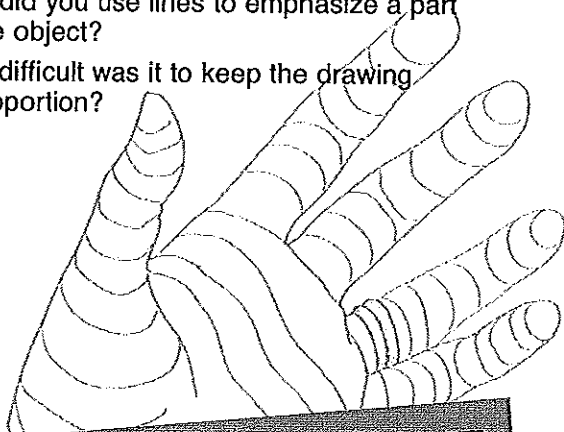
Create

1. Select an object from the kitchen or tool box. Place the object on the table in front of you. Move the object to the left and then to the right of you. Notice how the object looks different from different angles or positions.
2. Place the object where you can see it and your paper just by shifting your eyes without moving your head.
3. Begin drawing by looking closely at the outline of the object. With your pencil on the paper imagine that it is following the edge of the object. As you move your eyes along the edge of the object, move your pencil across the paper. Draw the lines, folds or creases that cross the object too.
4. Focus on the object more than on your paper and try not to pick the pencil up.
5. Do 2–3 drawings of the object from different angles.





- What details of the object did you notice in the drawing?
- How did you create different characteristics of line with your pencil?
- How did you use lines to emphasize a part of the object?
- How difficult was it to keep the drawing in proportion?



1. Do a blind contour drawing of your hand without looking at the paper and without lifting your pencil. Start at the bottom of the paper and begin with the outside edge of your wrist.
2. Pose your hand in several different positions and draw. Each time focus on the outline of your hand and the cross contour lines. Double back when drawing the cross contours. Your line should be continuous throughout the drawing. The end result doesn't matter as much as noticing the details of your hand.
 - What was the difference in your approach to drawing between the contour drawing and the blind contour drawing?
 - How did you keep focus on drawing during the blind contour drawing?
 - How did you keep going to finish several blind contour drawings?
 - What are the tasks you do between school, chores at home and clubs you belong to? How do you go about getting everything finished?



Sketchbook Entry

Do your sketch in your book or add the sketch sheets. Be sure to date them to show the progress of your work. Consider answering the Reflect and Imagine questions in a sketchbook.

Art-i-fact

Pencils are made with graphite and have never been made from lead. Because graphite looks very similar to lead people confused the two substances. Although graphite was first discovered in the early 1500's in England and used to mark sheep, it was the Italians that figured out how to put a wooden case around the graphite.

Learning Indicators

Through creation and imagination I:

- ☐ Observed objects and drew them keeping them proportional and emphasizing with lines.
- ☐ Completed several drawings of objects and my hand.
- ☐ Motivated myself to focus on the details of the objects and my hand.

Make the Marks

In the Studio:
Experiment with different drawing tools and learn shading techniques.

Life Skill:
Self-motivation

Youth Outcome:
Thinks for oneself and makes necessary effort for action

National Art Education Standard:
Understanding and applying media, techniques and processes

Materials:
☐ Pencil
☐ Your sketchbook
☐ Any object such as a cup, dish, fruit, etc.
☐ Lamp or flash light

Design Elements:

Form and line

Design Principle:

Rhythm



Artist Notes – Drawing with Tools

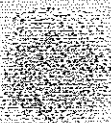
Drawing can be done with a variety of tools but this activity focuses on the pencil. A regular number two pencil can be used but a larger variety of marks can be made with **drawing pencils**. They are available in a range of light to dark and in stick and pencil form.

2H—very hard graphite, makes light marks, to 4H, 6H, HB, 2B, 4B, 6B—very soft graphite, makes dark marks. Drawing pencils can be purchased in sets or individually. They cost more than regular #2 pencils but give better line quality.

A **graphite stick** is a square 3" stick without any wood around it. Drawing with the edge of the stick produces a finer line. Laying the stick down and holding it firmly at one end while drawing along a shape will produce light to dark shading in one move.

The basics of drawing involve making marks in a variety of ways. When put together just right the marks create an artwork. Marks may include shading, hatching, cross-hatching, directional, burnishing, pointillism and swirls. All of these techniques can be used to create shading and thus value in a drawing. **Shading** techniques are used to show value. **Value** is the lightness or darkness of an object. Using value can make an object look close or far away, solid or three-dimensional, rough or smooth, and separate from another object.

Making marks requires a technique. **Shading** is done by using the side of the pencil. **Hatching** marks are rapidly made lines evenly spaced with some white space between them. **Cross-hatching** is two sets of hatch marks on top of each other going opposite directions. **Directional** marks are short lines quickly made to the contour of the object. **Burnishing** is laying down of layers of graphite giving a polished appearance. **Pointillism or stippling** is making numerous dots with the pencil point, close to together, to create value. **Swirls** or circular squiggles, layered upon each other, are another way to fill space or create value.



Shading



Hatch



Crosshatch



Directional



Burnish



Stippling



Swirls

Your Challenge

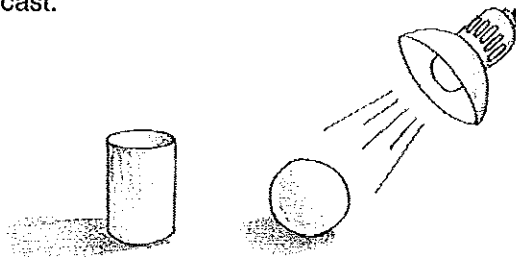
Make several value scales using different techniques. Once you see a range of value try drawing a shape and use a technique to give the shape a form.



1. Make a value scale in your sketchbook. Draw five connected boxes each 1" x 1". Leave the first box white. Using a 6B pencil, shade the second box as light as possible. Color the third box a little darker, and the fourth box darker yet; the fifth box black.
2. Shade using one of the techniques above.
3. Do a second value scale using a different shading technique.



4. Draw a circle, square cylinder, and cone in your sketchbook, one per page.
5. Use the value scale to make the shapes appear solid or three-dimensional rather than flat.
6. Remember to shade according to the contour of the shape. Use two techniques.
7. Pretend that a light is shining on the forms from the right. Add a shadow that the shapes would cast.

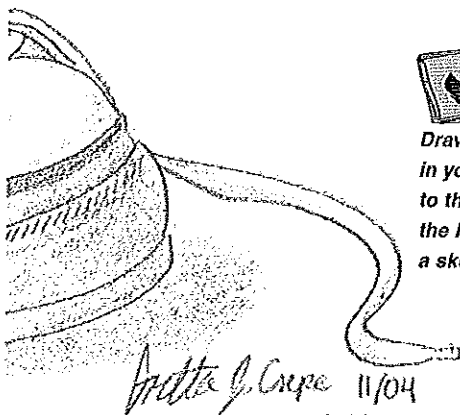


- What types of lines did you use on the value scale?
- How did using a different line change the value scale?
- How did the shading of the shapes make them three-dimensional?
- Which direction did the forms cast a shadow?
- How did you create a shadow?



Sketchbook Entry

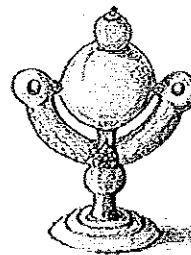
Draw the two value scales and four forms in your sketchbook. Add your fruit drawing to the sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.



Activity written by Beth Saxton.



1. Select an object such as a piece of fruit, mug, or dish. Place it in front of you.
2. Shine a lamp light on the object. Select the direction from which the light shines.
3. Using a pencil draw the object outline. Keep your eye on the outer edge of the object as you draw.
4. Add value to give the object form. Use a shading technique that suits the texture of the object.
5. Add the shadow the object is casting.



- What did you find most interesting in creating the drawing?
- Describe what you find most interesting in your drawings using terms learned in this activity.
- Why did you choose to learn to draw?
- What goals to do have for learning to draw? How will you make your goals happen?
- Do you have goals for other things that interest you?
- How will go about making those things happen?

Learning Indicators

Through creation and imagination I:

- ☐ Drew two value scale studies using different marks/techniques.
- ☐ Drew four shapes and turned them into forms by adding value.
- ☐ Completed a drawing of an object including value and shadow.
- ☐ Created goals and strategies to learn to draw.

Finding Space in Perspective

In the Studio:
Examine one and two point perspectives through drawing.

Life Skill:
Problem solving

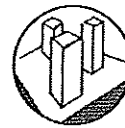
Youth Outcome:
Uses cognitive abilities and processes to find solutions

National Art Education Standard:
Using knowledge of structures and functions and making connections between visual arts and other disciplines

Materials:
☐ Paper
☐ Pencil
☐ Ruler, t-square, triangle
☐ Pastel or paint

Design Elements:
Line and space

Design Principle:
Proportion



Artist Notes – Examining Point Perspectives

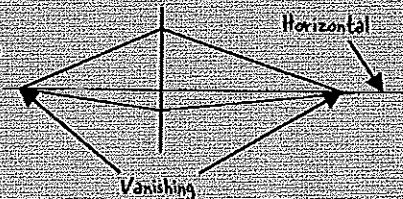
Look outside. Some objects (people, cars, trees) that are close look bigger and other objects that are far away look smaller. We know that those far away people are not really smaller than the ones close by, but they seem smaller because of their distance.

Perspective is used to create the illusion of three dimensional space in flat artwork. Perspective allows people and objects to look proportionate in a drawing. Perspective begins with establishing a vanishing point. The **vanishing point** is always on the eye level horizontal line. **Horizontal lines** run from left to right across the paper. **One-point perspective** is placed anywhere along the horizontal line, typically in the middle section on the page. If an object is below the horizontal line then you would see the top of that object. If the object is

above the horizontal line you would not see the top of the object. Lines that meet at the vanishing point are **orthogonal lines**. They angle out from the vanishing point in the center of the picture like sun rays. **Vertical lines** run from the top to the bottom of the paper and are **perpendicular** to the bottom of the paper. When a horizontal and vertical line crosses it makes a **right angle (90°)**. Using orthogonal, horizontal and vertical lines creates perspective in your artwork.

Two-point perspectives have a point at each end of the horizontal segment. All of the vertical lines will be **parallel**; the orthogonal lines recede to the vanishing points in two-point perspective.

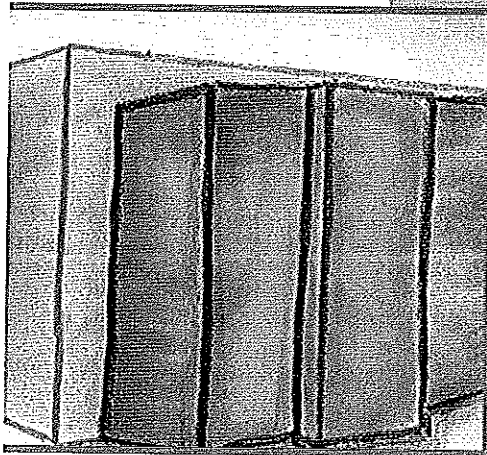
Another way to look at perspective is to look at an object in front of you. All you see is the front of the object. This is where the horizon line is. The center of the object is the vanishing point. Everything above the object seems to angle downward and everything below the object angles upward.



As you perfect a sense of perspective it is important to know how to measure subjects in your artwork. A "standard unit of measurement" for drawings is simple to do. Use your thumb as a guide on your pencil. Grasping the pencil sideways in your hand, holding it up at your eye level, move your thumb up and down the pencil to measure the object you are drawing. Transfer this measurement to your paper. This technique will help keep your work in perspective and **proportioned**. The measurements will be a relative size to the surrounding objects.

Your Challenge

Create two perspective drawings, a one-point perspective and a two-point perspective, either on loose paper or in a sketchbook





1. One-point perspective- Find an interesting place either inside in a long hallway, or outside where a street and/or sidewalk is visible. Recreate the area you are observing using one point perspective.
2. Start with the eye level line and construct the vanishing point. A ruler will help to construct nice clean lines. Horizontal lines will be parallel while vertical lines will recede to the vanishing point.
3. Two-point perspectives- Choose an interesting location outside with a view of a corner of a building.
4. Start out with the eye level line, placing a vanishing point on the extreme right side of the page. Then place your second vanishing point on the extreme left side of the page. Both vanishing points will be about an inch away from the edge of the page. A horizontal line will intersect the two vanishing points. All orthogonal lines will connect with one of the vanishing points. All vertical lines will stay vertical. Use a ruler to make nice clean lines. Make a replica of the architecture that you see.
5. When you have completed your first two sketches, pick the most interesting piece. Clean up any stray lines; add a touch of color to the whole piece or just to emphasize an area or region. Be creative. Use any type of pastel or paint. Work from your original sketch or create a new one.



- What was the hardest part of drawing a picture in perspective?
- How did line and use of space work together to give a sense of perspective?
- How did measuring help perspective in the drawing?

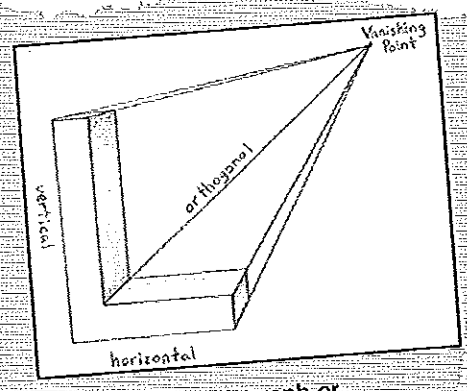
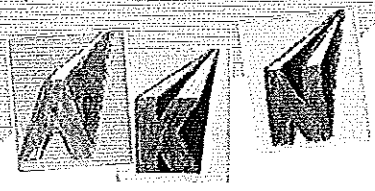


1. Sit in front of a bookcase.
 2. Determine which shelf is at eye level and make this the vanishing point.
 3. Draw the vertical lines first.
 4. Draw the horizontal lines.
 5. Draw the items on the bookcase keeping them in proportion to the book shelf.
- What challenges did you have with perspective drawing? How did you find solutions?
 - Name another challenge you have at school, with family or friends.
 - How will you go about finding solutions to this challenge?
 - Can this process be described in steps?
 - Are there similarities in steps you take to seek solutions in drawing to your other challenge?

Simplify

1. Create a three-dimensional alphabet.
 - Draw a block letter
 - Make a vanishing point
 - Draw lines from each corner of the letter to the vanishing point
 - Draw lines to show the back edge of the letter.

Note: The letter L is below the horizontal line.



2. Using a photograph or magazine picture with buildings or street and sidewalk, select the vanishing point(s). Make a mark on the picture. Draw in orthogonal lines (rays) ending at the vanishing point.



Sketchbook Entry

You can either work in your sketchbook or add your best drawings to the sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Learning Indicators

Through creation and imagination I:

- ☐ Used line and space to create a sense of perspective.
- ☐ Practiced several drawings to perfect my techniques.
- ☐ Figured out how to correct the lines to achieve perspective in the drawing.

Drawing in the Round

In the Studio:

Explore drawing by fitting the drawing to the paper size.

Life Skill:

Communication

Youth Outcome:

Integrates feelings, thinking, and actions into social competence

National Art Education Standard:

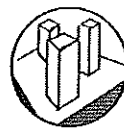
Using knowledge of structures and functions

Materials:

- ☐ Drawing paper
- ☐ Pencil or drawing tool
- ☐ Circular object
- ☐ Compass, optional

Design Elements:

Line and space



Design Principles:

Emphasis and proportion



Artist Notes – Exploring Paper Types

Canvas or paper size is just one of many choices the artist makes when planning an artwork. The paper or cloth size, color, texture and weight all affect the artwork. When learning to draw, it is important to experiment with several types of papers. Each paper type has unique qualities. Explore paper types at a local art supply store, art catalogue, or over the Internet.

Explore **cold press** and **hot press** papers. Paper is available with different texture sometimes called **tooth**. A light tooth is a light texture. Try paper that is 60 lb and 80 lb. Paper with a higher weight is thicker and heavier. Paper weight refers to a fixed weight of 500 sheets measured in pounds, in a specific paper's basic size. It is important to note that the "basic sheet size" is not the same for all types of paper. Most drawing papers are acid-free. It's best to draw on acid-free paper because the artwork will last longer and not yellow over time. Practice drawings on newsprint, but draw on paper that will last if you plan to keep the drawing.

Although you are used to drawing on white paper, try drawing on a colored paper. Try colored papers other than construction paper. Fadeless paper is a good choice. Other colored drawing papers are available in different weights and different textures.

You may have to choose different drawing tools to get your lines to show up on colored paper. Before beginning the activity, explore the artwork of **Chuck Close** and **Georgia O'Keeffe**. They have very different styles, but they looked at objects close up and made choices about how much of the object to include.

Your Challenge

Draw a subject to fit a circular shape. Then try drawing the same subject using a smaller space.

Create

1. Trace a round object onto a sheet of drawing paper. Use a wastebasket, an ice cream bucket or use a compass to make a circle. Cut it out. The dimensions of the paper determine the size of the circle.
2. Look at your circle carefully. Taking advantage of the circle shape consider what image would fit well in a round shape. Perhaps a kitten rolled up with a ball of yarn or raindrops drawn in an abstract style? Also consider where on the paper to draw the image—in the center of the circle; repeated around the edge like a border; or in pie-shaped spaces around the circle.
3. Draw the image that you have selected using as much of the space as feasible.

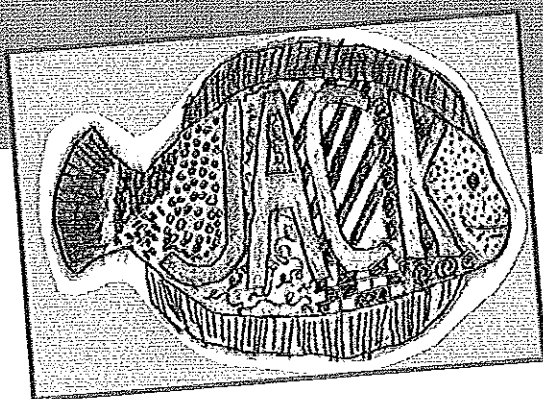




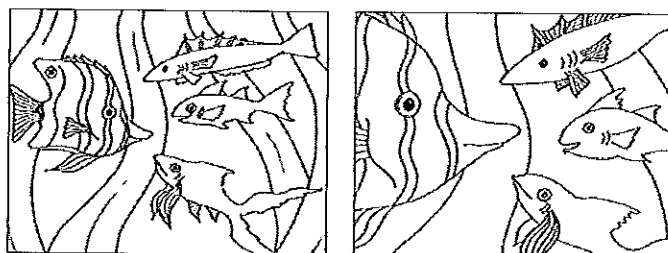
- What size of image do you usually draw? Do you draw that size because that's the size of your sketchbook or paper?
- How did you use lines to fill the space?
- How is your drawing proportioned to the circle?
- What feelings are expressed in your drawing?
- What feelings did you feel as you drew? Are these the same feelings expressed in your drawing?

Enhance

1. Try drawing on a square, triangle, or other geometric shape. Consider if you will fit the drawing to the shape or emphasize a portion of the whole image.
2. Many paper companies will send free samples. Request them. When the samples arrive note the color, texture, weight and/or tooth. It's important to actually draw on the different papers to find out what you prefer. Try different mediums on these different papers. Use pencil, colored pencil, marker, and charcoal.
3. Try creating on specially papers—Thai paper, Egyptian papyrus paper, Indian silk paper.



1. Draw on a piece of paper that is at least 2' x 2'. Tape several papers together if needed.
 2. Consider what image would fit well in the large space. Draw the image.
 3. Draw on a piece of paper that is no more than 4" x 4". Consider if you will draw only one part of an image or the whole image in the small space.
- Describe how you used the large and small paper.
 - What changes did you make in your normal drawing style?
 - Did you make your drawing larger or did you fill up the paper with more images?
 - How does an artist communicate when only showing a portion of an image in an artwork?
 - What are other times at school, at home, in a club or with friends do you communicate without using words?
 - What are appropriate ways to convey your thoughts and feelings non-verbally?



Sketchbook Entry

Select your best drawings on a variety of papers and add them to your sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Learning Indicators

Through creation and imagination I:

- ☐ Drew on several different shapes and sizes of paper
- ☐ Adapted my drawings to use the space available
- ☐ Emphasized one feature of my drawing
- ☐ Communicated a thought, idea or object in my drawings



Explore more at
www.4-hcurriculum.org
National 4-H Curriculum

Blending Lines

In the Studio:

Draw with colored pencils and use turpenoid (a turpentine substitute) to blend the colors.

Life Skill:

Problem solving

Youth Outcome:

Uses cognitive abilities and processes to find solutions

National Art Education Standard:

Understanding and applying media, techniques and processes

Materials:

- ☐ Paper or sketchbook
- ☐ Colored pencils
- ☐ Turpenoid (odorless, colorless turpentine substitute)
- ☐ Cotton cosmetic sponge
- ☐ Cotton swabs
- ☐ Small metal container with lid
- ☐ Latex gloves

Design Elements:

Color and line

Design Principle:

Emphasis and unity



Artist Notes – Drawing with Colored Pencils

Colored pencils are great for making lines. But they are also used to color in large areas. They can be used to create line texture or shading. To achieve a variety of techniques artists use turpenoid as a method of spreading colors.

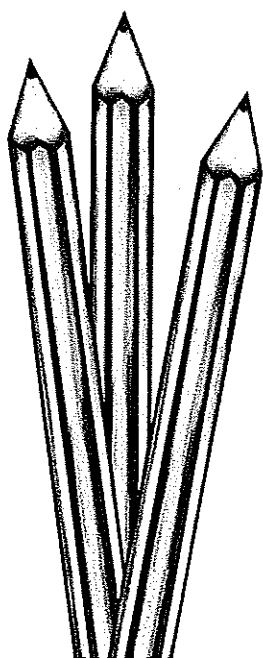
Safety: When using turpenoid follow safety instructions on the container. Though turpenoid is odorless, it is hazardous to breathe. Use only in well ventilated areas. Pour a small amount in a metal container with a lid that can be easily lifted. This will help keep the turpenoid from evaporating and keep the fumes in the container. Purchase turpenoid at art supply stores, from catalogs or online. Wear latex gloves when working with this solvent.

Your Challenge

Practice drawing with colored pencils and blend the lines using turpenoid. Then, plan out a drawing emphasizing one area while maintaining overall unity.

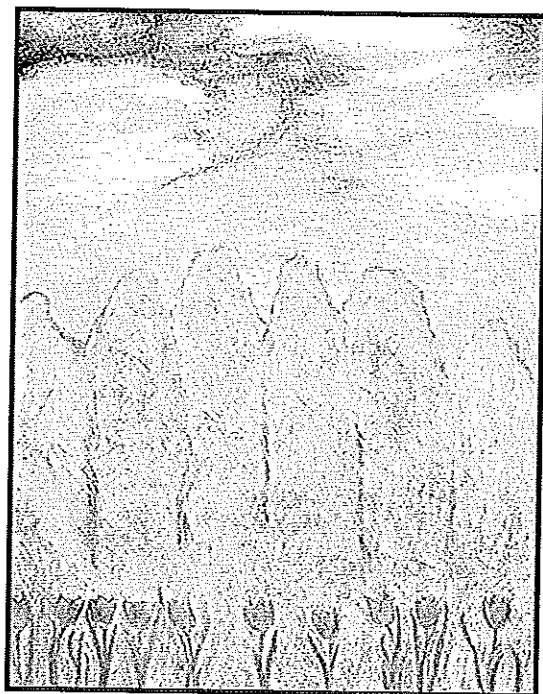
Create

1. Practice several sketches using colored pencils and turpenoid. Begin with a sketch of the sky. Think of the colors you'd like to use. They don't have to be real sky colors.
2. Color in the areas of the sky. It does not need to be colored in precisely.
3. Working in a well-ventilated place, pour a small amount of turpenoid into a container. Turpenoid evaporates easily so pour out only a small amount at a time.
4. Wrap a cotton cosmetic sponge around your index finger. Gently dip it into the turpenoid to moisten. Use just enough turpenoid to blend the colors without soaking the paper. Rub over your drawing and see how the colors change.
5. Add more colored pencil in areas that need it. Then rub them again with turpenoid. Try rubbing in a pattern that may give some texture to your drawing.
6. Consider adding lines without blending them in areas where you want emphasis.
7. Try adding white and other light colors over some darker colors. What happens?
8. Use the cotton swab dipped in turpenoid to blend in some small areas.





- What colors did you plan in the drawing?
- How did you use lines to emphasize a part of the sky?
- How do you keep the colors where you wanted them?
- How did blending affect the colors? How did blending affect the lines?
- How did using color help create harmony or bring the parts of the picture together?



Doodle here ...



Plan and complete a colored pencil drawing. Start with a line drawing before adding color. Consider the colors you will use and how blending will emphasize an area. Use turpenoid to blend the colors. Consider how blending will give the drawing unity.

- Describe the process you used to solve the problems of using color pencils and turpenoid to create your drawing?
- Can you break this process down into steps?
- Think of challenges you face every day at school, at home, as a member of a club or with friends. Can the steps you used to find solutions when doing art work with other challenges?

Simplify

Try using watercolor colored pencils and water. You can apply the pencil color on your paper and then brush water onto it. Another technique is to dip the colored pencil in water and draw with it. Both ways work to turn the watercolor colored pencil into paint.



Sketchbook Entry

Practice sketches in your book or add the sketch sheets. Be sure to date them to show the progress of your work. Consider answering the Reflect and Imagine questions in a sketchbook.

Learning Indicators

Through creation and imagination I:

- ☐ Observed skies and drew them with many colors.
- ☐ Completed several drawings using turpenoid.
- ☐ Practiced blending colors and lines to create emphasis.
- ☐ Identified steps to find solutions to challenges that could work in other situations.

Lines of Expression

In the Studio:
Sketch animals and other subjects using pen and ink.

Life Skill:
Self-motivation

Youth Outcome:
Thinks for oneself and makes necessary effort for action

National Art Education Standard:
Understanding and applying media, techniques and processes

Materials:
☐ Paper or sketchbook
☐ Pen and ink or markers



Design Elements:
Line and texture



Design Principle:
Emphasis



Artist Notes – Designing with Pen and Ink

Pen and ink is a unique medium to work with. It is challenging because ink does not erase, it can blot and drip. There are a number of ways to do pen and ink. **Dip pen with nibs, a fine-point felt marker, fountain pen, or sticks, reeds, bamboo or other exotic materials** can be used. Each tool will give a distinctive type of line. Experiment with several tools.

If using a dip pen, there are several styles and sizes of **nibs**. There are square, round and flat nibs, each in six to nine sizes from very thin to thick. Nibs are measured in millimeters (mm), but may also be listed by a number size. The higher the number of the nib, the thinner the line size it will make.

There are a variety of drawing inks available through art supply stores. **India ink** is a common name for inks that are made from water, a lamp black or carbon black, and a binder. India ink can be thinned with water, yet it dries to a permanent insoluble film. **Colored drawing ink** (dye-based) is water soluble and can be mixed together. It comes in a range of colors but is not light safe. For lightfast water-soluble inks, try a liquid **acrylic artist ink**. They come in bright colors and can be intermixed.

When drawing with a material that can't be erased, you need to spend time thinking about the drawing first and then practice several pictures. The sketchbook is a great play to practice.

Human brains can use **persistence of vision** to fill in empty parts of a drawing. Try these simple drawing activities:

Draw a circle that is not quite complete. Show it to three friends and ask them what they see. Do they mention that it is not finished or do they just say it's a circle?



Make four lines in the shape of a square but don't connect them. Check with your friends to see if they see a square or four lines. Our brains try to make drawings into meaningful information. Brains are wired to make connections, to see the whole instead of the parts.



Your Challenge

Use the sense of finding wholeness by carefully choosing the lines you draw. Don't draw every line to give your drawing meaning. Think about the essence of an animal; the one thing that best describes it. Think of visual answers for these:

The essence of a

Porcupine are the quills

Lion is the _____

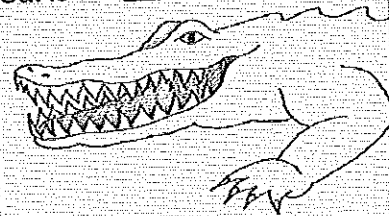
Zebra is the _____

Rabbit is the _____

Rooster is the _____

Cat is the _____

Short lines can indicate texture better than continuous solid lines. You don't have to draw the photographic reality of texture, just indicate it with the type of line you choose. How could you make a line look soft and fuzzy or furry? How could make a line look sharp-like alligator's teeth?





1. Choose several animals and decide on their physical essence.
2. Don't draw an outline around the edge of the animal. Instead draw a few lines or dots that indicate its essence.
3. Add a few more lines that fill in some of the most important details. It is not necessary to add all the lines that you know are part of the animal. A few well-chosen lines may communicate more than all the lines drawn in.



- What lines did you use in the drawing?
- How did you use lines to emphasize a part of the animal?
- What type of lines created texture?



Plan out a pen and ink drawing on a subject of your choice. Consider how you will use lines to create texture and emphasis.

- What goals do you have for creating texture with drawing techniques you have learned?
- How will you make your goals happen?
- Describe your plan for making your goals happen?
- Think of a goal for another area of your life. What steps in a plan would help you make the goals in other areas of your life happen?

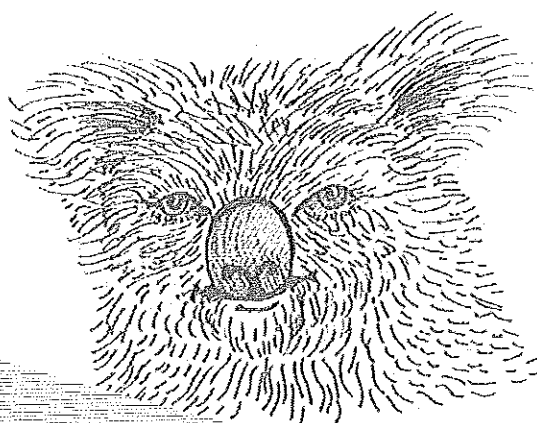


Sketchbook Entry

Practice pen and ink sketches in your book or add the sketch sheets. Be sure to date them to show the progress of your work. Consider answering the Reflect and Imagine questions in a sketchbook.

Enhance

Complete an ink drawing. Add color with water color pencils and a wash.



Learning Indicators

Through creation and imagination I:

- ☐ Completed several practice sketches.
- ☐ Created texture in my sketches through the use of lines
- ☐ Emphasized an aspect of my drawing.
- ☐ Planned and completed a pen and ink drawing.
- ☐ Created goals and strategies to learn to draw with pen and ink.

Characters with Style

In the Studio:

Write the upper and lower case alphabet in a calligraphic style.

Life Skill:

Self-motivation

Youth Outcome:

Thinks for oneself and makes necessary effort for action

National Art Education Standard:

Understanding and applying media, technique and processes; reflecting upon and assessing the characteristics and merits of their work and the work of others

Materials:

- ☐ Pen holder
- ☐ Selection of nibs
- ☐ Paper
- ☐ Line grid
- ☐ Ruler
- ☐ Ink
- ☐ Black watercolor paint
- ☐ Brushes, rounded and bamboo
- ☐ Paper towels
- ☐ Water
- ☐ Tape
- ☐ Calligraphy paper, optional
- ☐ Calligraphy markers, optional
- ☐ Cartridge pen, optional

Design Element:

Line

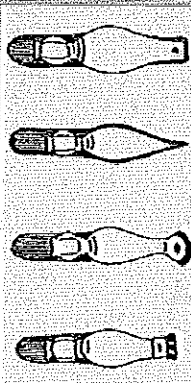
Design Principles:

Variety and rhythm



Artist Notes – Working a Calligraphic Style

Calligraphy is the art of writing that developed across the globe throughout history. Paleographers are those who study and decipher ancient inscriptions, writings, and manuscripts. It is believed that the first evidence of writing dates back to 3500 BC. These writings were more pictorial than script. **Hieroglyphics**, Egyptian writings, date to 3000 BC. By 1500 BC the Egyptian's styles were evolving, and the Greeks and Romans picked up the techniques by writing on papyrus and vellum. By the Middle Ages, all manuscripts and writings were done in a fancy style that is associated with calligraphy today. The Chinese also created more than 1500 characters to represent their written language. Today, Chinese and Japanese use calligraphy characters to represent language. These characters are more like a painting, which are very carefully constructed, beautiful and flowing.

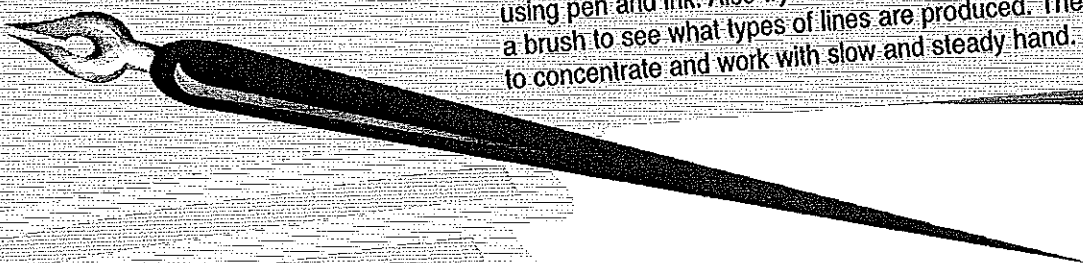


Calligraphy requires concentration and patience. Marks are made with either a brush or a pen. Strokes change from thick to thin, creating a fluid look. It is important to work slowly and with a steady hand. Try working with both pens and brushes. The pens may be the **dip style**, to which a variety of **nibs** (tips) can be attached; alternatively a pen that uses a cartridge attachment can be used. The **cartridge pens** may have suction filled ink reservoirs or disposable cartridges. Try writing with a round-pointed brush and with a bamboo brush. Each tool will produce a unique style. It takes self-motivation, but anyone can be a successful calligrapher. Practice is the key to creating characters with style.

Always clean the pens and brushes after each use. Do not let the ink dry on the nib or bristles. Clean them with water and paper towels. All ink should be cleaned from the bristles down to the **ferrule**, the metal band that hold the bristles together. Pens with disposable cartridges do not need to be cleaned each time; however the cap should be kept on when not in use to prevent the ink from drying.

Your Challenge

After practicing the basics of calligraphy, write the alphabet using pen and ink. Also try writing Japanese characters with a brush to see what types of lines are produced. The key is to concentrate and work with slow and steady hand.

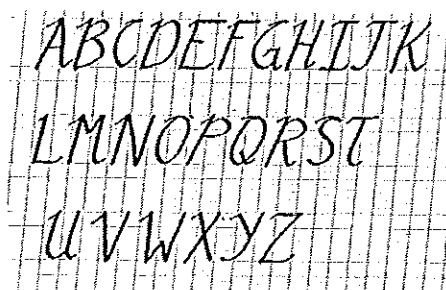




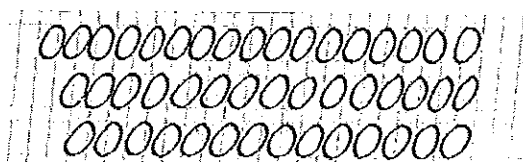
1. Get your writing utensils ready and all of the necessary materials. Use lined paper or a grid. Practice calligraphy paper is available at art stores.
2. Work on a 40–60° sloped surface. Tape the corners of the grid paper and writing paper to the surface.
3. Hold the pen in your hand, with the tip at a 45° angle to the paper's edge. Only your little finger and wrist should be touching the paper. Do not rotate the tip, as it will change the thickness of the lines.
4. Make each stroke by pulling the pen towards you. Never push the pen away from you.
5. Practice writing several sheets of vertical strokes of equal length. Try to get one row of evenly spaced identical lines.
6. Practice writing several sheets of short horizontal strokes, like crossing a "t". Strive for quality of line thickness and equal spacing.
7. Once you see uniformity in your strokes,



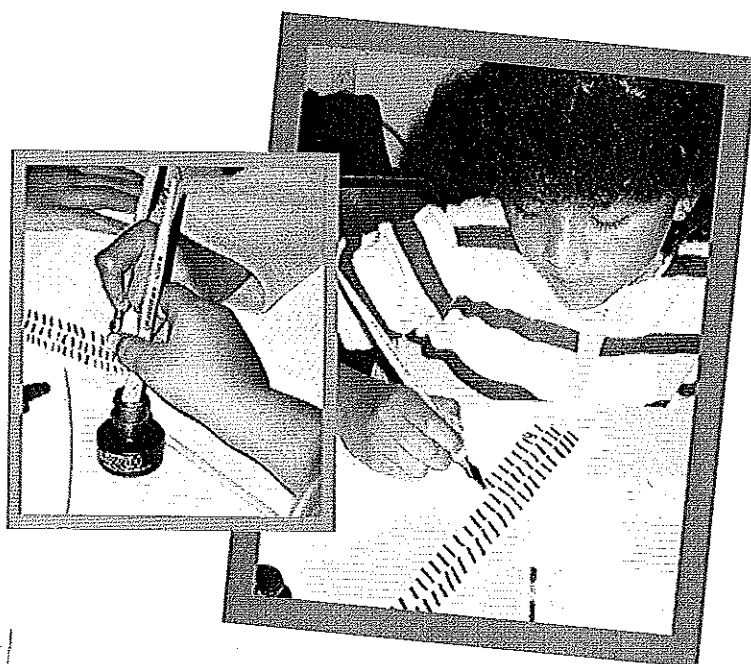
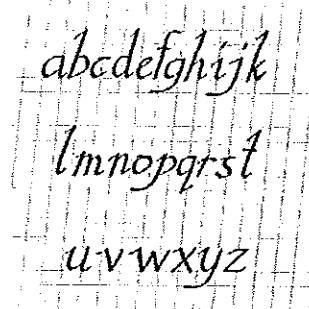
practice writing letters "A, E, F, H, I, K, L, M, N, T, V, W, X, Y, and Z". Write several sheets of each letter.



8. Practice writing several sheets of the letter "O" always striving for uniformity in line thickness and spacing.



9. Once you see uniformity in your strokes practice writing letters "B, C, D, G, J, O, P, Q, R, S, and U". Write several sheets of each letter.
10. Now, practice writing several sheets of each lower case letter.
11. On a clean sheet of paper, write your full name in calligraphy.



- When first starting, what type of line quality did you have?
- How did the line quality improve?
- Which letters are the hardest to write?
- What was the hardest part of using a calligraphy pen?
- What did you like most about writing in a calligraphic style?

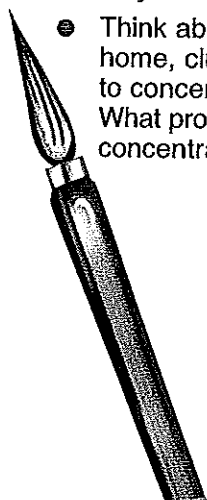


Sketchbook Entry

Mount your calligraphy name and poem on mat board and add them to your portfolio. Consider answering the Reflect and Imagine questions in a sketchbook.



1. Using a brush and black watercolor or ink, practice making lines. Dip the brush in ink and pull the bristle against the jar edge to form a point. Hold the brush at the ferrule vertically above the paper, rather than at an angle. Lightly move the brush across the paper. Notice, that when you push down, the lines become thicker. Using just the tip of the brush produces a thin line.
2. Using a brush, write the alphabet. Keep the same style throughout the letters. Practice until you see uniformity in the letters.
3. Using a brush, write a short poem or your family members' names.
4. Try writing Japanese character with either a brush or pen.
 - Calligraphy takes concentration and patience. What did you do to stay focused on doing calligraphy?
 - How else can you use calligraphy to create art?
 - Describe the steps or process of how you stayed focused?
 - Think about other areas of your life (school, home, clubs or friends) where you need to concentrate and be patient. Name one. What process or steps would help keep your concentration or patience in that situation?



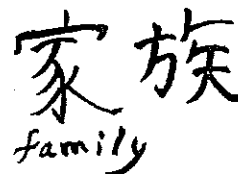
Simplify

Use calligraphy markers to practice writing the alphabet.

Enhance

Using a calligraphy brush technique, draw a simple leaf or fruit. Play with line thickness to give the subject rhythm.

ART ART



Learning Indicators

Through creation and imagination I:

- ☐ Practiced using a calligraphy pen.
- ☐ Produced an alphabet with uniform lines and style.
- ☐ Practiced using a brush for calligraphy.
- ☐ Created two pieces of calligraphy art.
- ☐ Motivated to concentrate while doing calligraphy.

Acknowledgement: Japanese characters by Japanese exchange student.

Activity written by Haley Goodwin and Maureen Toomey.

Brain Jogger



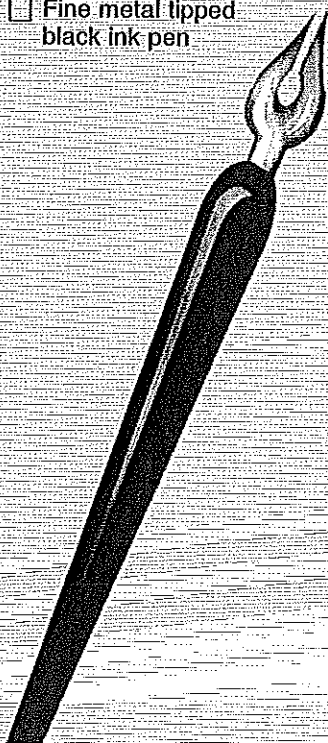
Life Skill:
Self-motivation

Youth Outcome:
Thinks for oneself and makes necessary effort for action

National Art Education Standard:
Understanding and applying media, techniques, and processes

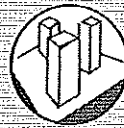
Materials:

- ☐ Large poster board or paper hung on an easel or wall. (Something large enough to draw on for all to see.)
- ☐ Wide markers in darker colors
- ☐ Sketchbook or white paper
- ☐ Fine metal tipped black ink pen



Design Elements:

Line, shape and space



Design Principles:

Emphasis, movement, proportion and variety

Cartooning

Artist Background: Cartooning is a simple process of making line drawings, showing sequential motion. Today we can read cartoons in books, magazines and newspapers or watch animated cartoons on television and in theaters. Originally cartoons were full-scale line drawings on large paper for fresco wall paintings. The word cartoon comes from the Italian word cartone, meaning paper.

Cartoons can be caricatures of personalities with exaggerated or distorted features. Or, they can be inanimate objects given personalities, like many of the cartoons seen on television. Cartoons are used to tell a story, be it serious or funny.

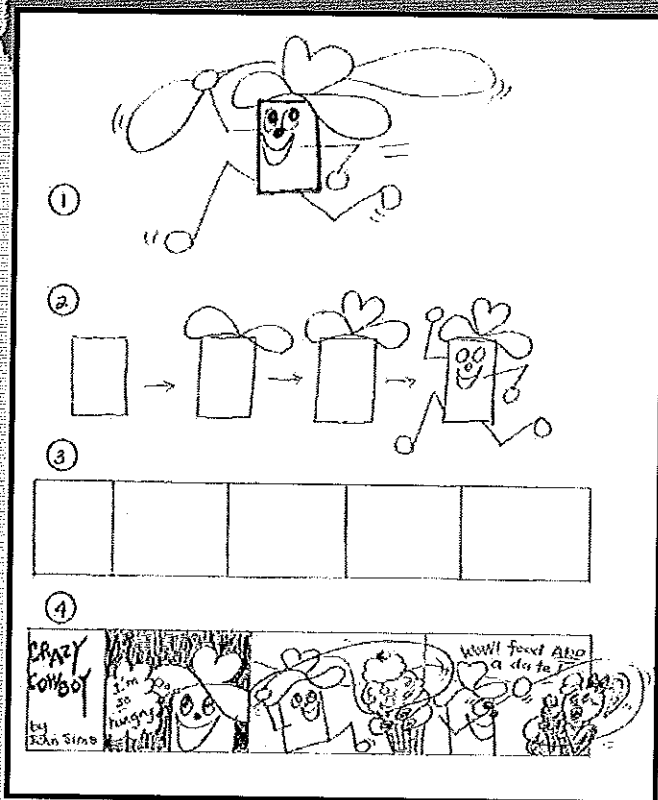
Artist Technique: The cartooning process is rather simple. Think of it as drawing shapes that fit together to create a character. With a group try this technique. Draw a simple shape cartoon in front of the group showing how simple a "doodle shape" cartoon character can be. Be sure to keep it simple. (see example #1) Discuss what the group thinks the cartoon character might be doing.

Draw one free form (organic) or geometric shape on the board or large paper. Have each person take turns adding one new shape to develop the character. (see example #2) This can go as long as you want. Do several of these. Discuss what the group thinks each character is doing and what a good name for each character would be.

Consider what shapes make characters funny. How would you show movement of varying speeds and direction? How can you add lines to give the character emotions like surprised, angry, sad, happy, shy, etc?

Your Challenge

Create your own "doodle shape" cartoon character. Using a pencil, start with a free form or geometric shape and add other shapes and lines to it until you think it's a funny one. Be sure to do several of these before you choose your best one. Think of a funny story or joke and use one or more of these cartoon characters to act out the funny story in the form of a comic strip. Divide a rectangle shape into three to five frames for the action to take place step by step (see example #3). Be sure to change your characters' shapes and add curved lines around moving parts to show action. (see example #4) Use black ink to finalize your comic strip.



- How did you keep each picture simple so most of the focus is on the character's actions?
- How did you use some solid areas to help your cartoon stand out?
- How did you repeat the same viewpoint or try a variety of views in the comic?
- How understandable was your funny story to others?

jot down ideas of funny things that happen to you in your life, current events that you want to make a point about or stories you have heard. Continue to create cartoon characters in the edges of the writing. Journaling in your sketchbook with cartoon characters is a fun way to develop your cartooning skills and to keep a humorous view of the things that happen throughout life!



- What kept you focused on creating your cartoon character and story?
- What other interests do you have that easily keeps your attention and focus?
- Think about something you need to do that is hard to maintain concentration. What are things you can do or ways you can remain focused in this situation?

Doodle here ...

Art-i-fact

Gary Larson graduated from college with a degree in biology and puts this knowledge to work when creating his *Far Side* cartoons.

Learning Indicators

Through creation and imagination I:

- ☐ Was motivated to create a cartoon character and story line.
- ☐ Used line to create interesting shapes for the cartoon characters.
- ☐ Created characters that are proportionate.
- ☐ Created characters that show movement.

Unit 2

Fiber Arts

Felting Wool for Appliqué
Working with Cotton Linter
Batik
Weaving on a Lap Loom
Inkle Loom Weaving
Dyeing to Experiment
Brain Jogger — Symmetry in Patchwork

Fiber arts covers many topics such as weaving, spinning, dyeing, knitting, crocheting, felting, papermaking, needlepoint, sewing, basketry, quilting and other textile handicrafts. The difference between using the term textile art and fiber art is textile refers to fabric made from fibers. Fiber art encompasses many types of fibers, not just fabric.

Natural fibers may consist of wool, mohair, cashmere, flax, cotton, silk, jute, ramie, sisal, Amate paper and many others. Fibers that are woven must have a reasonable amount of length, fineness, strength and flexibility. Two terms that relate to textile fibers are filament and staple. Fibers that have a continuous length and don't need additional fibers added are called **filament**. Silk is an example of a filament fiber. Fibers of limited or short length are called **staples**. Twisting together staple fibers produces a longer length fiber for weaving. Cotton is a staple fiber. Both filament and staple fibers can be woven, but each produces a different texture. Filament fibers tend to be silky and lustrous while staples will be thicker and less smooth.

When working with textile fabrics, understand that the weave consists of the **warp** threads and the **weft** threads. The warp threads are put on the loom and hold the shape of the fabric. The **straight of grain** runs the direction of the warp. **Weft** threads are woven in and out of the

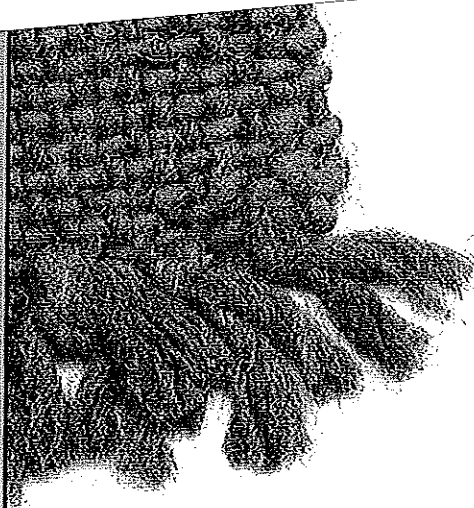
warp. The edge of the fabric is called the **selvage** and may be a tighter weave than the rest of the fabric. A true bias is at 45°, cutting exactly across the warp and weft intersections. This is where a woven fabric has the greatest stretch and flexibility.

Fibers have been used for art and utilitarian purposes by all cultures throughout time. The Egyptians used papyrus reed to make paper. Ancient Chinese used mulberry pulp to make their paper. The ancient Aztecs and Mayans wrote on Amate paper made from the bark of ficus trees. Persians are known for their excellent rug and tapestry weavings. Inuit and Eskimo people have long used animal hides for clothing and incorporated them into artworks. Cotton and wool fibers have been used across the globe for both clothing and ornamentation. All types of reeds and grass have been used to make both functional and ceremonial baskets by many peoples. As you explore the activities in the Fiber Arts Unit keep an open mind and think, 'How can I enhance this process, and what can I do differently to create an artwork.'



Sketchbook

Use your sketchbook to capture your fiber designs. Sketch designs in your book before beginning. Color the sketches to get an idea how the fiber colors will work together. Photographs of your fiber artwork can be added along with the sketches showing your progress. A separate sketchbook with a loose binding is helpful, allowing fiber samples to be taped into the book.



Tips

- Have a good sharp pair of scissors for cutting fabric. Do not use them to cut paper or heavy thick fibers like grasses.
- Set out all your supplies before beginning a project. This way you won't have to stop mid-way and look for the needed item.
- Try creating the artwork several times. You will learn from each piece you create, building and progressing to a masterpiece.
- Working with fiber may take time and is not a project that is completed in a day. Be patient and enjoy the process.

Doodle here ...

Community Connection

West Africa has many traditional cloths and styles of weaving, dying and printing. The Ashanti people of Ghana print cloth in a grid pattern called Adinkra cloth. Historically, the Adinkra cloths were worn at funerals and during times of mourning. The cloths usually had a red, black, brown or purple background. After the burial, a white background cloth was worn. Within each grid or square, a different symbol was stamped. Today, the cloth may be of any color and the symbols stamped may represent an Ashanti proverb, people, household objects, animals, etc.

To create an Adinkra cloth boys or men stretch the cloth on a large padded board. Using a comb tool dipped in dye they mark off the cloth in a grid. Using stamps made from carved dried calabash gourds dipped into the thick dye they carefully fill each square with a symbol. The thick black dye, called Adinkera aduru, is made by young women from pulverized tree bark that is then boiled. Some of the water is poured off the dye bath and lumps of iron slag are added. The mixture is boiled again until thick like molasses.

Felting Wool for Appliqué

In the Studio: Felt wool and stitch a felted wool appliqué mat.

Life Skill:
Positive identity

Youth Outcome:
Develops a healthy sense of self

National Art Education Standard:
Making connections between visual arts and other disciplines

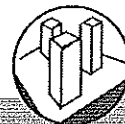
Materials:

- ☐ 100% wool fabric — use wool clothing purchased from a second hand clothing store.
- ☐ Duck or canvas fabric
- ☐ Access to a washer and dryer
- ☐ Large needle
- ☐ Embroidery floss or pearl cotton (size 5)
- ☐ Fabric scissors
- ☐ Scissors for paper
- ☐ Seam ripper
- ☐ Rotary cutter
- ☐ Ruler

Design Elements:
Color and space



Design Principle:
Balance



Artist Notes – Exploring Felted Wool

Felt is a non-woven fabric of tightly bound fibers that do not ravel. Wool has traditionally been used in the felting process, so much so, that the term "felt" became synonymous with wool. Today, craft felt is not wool at all, but made of a synthetic material. When moistened, agitated, heated and pressure added, pure wool has the ability to coil upon itself, interlock and shrink. Ancient people found they could take wool fibers, wet and heat them, and then pound the fibers until they bound together, thus creating a cloth.

The felted-wool for this activity is not true felt, but rather woven wool fabric that you will wash, agitate, heat and dry. When designing your artwork think about the wool colors, the overall space and placement of the design pieces, and how both **color** and use of **space** creates a sense of **balance**. The blanket, running or whip stitch are simple stitches for attaching the felted pieces to the foundation. The stitches tie all the elements together. Other stitches work well and may be explored.

Wool is an **animal fiber** and needs moisture when pressed. A cotton cloth is also helpful when pressing wool. Store wool in an airtight container. Whole cloves may be added to repel insects, but do not store wool with mothballs. Mothballs contain the chemical naphthalene that is toxic when inhaled.

Your Challenge

Collect and felt second-hand wool and use it to create an appliqué of rich colors. Plan out the design considering the wool colors and the floss or cotton pearl thread.

Create



Selecting and Collecting Wool

1. Collect 100% wool for felting from friends and family who sew. Explore second-hand and used clothing stores. Look for coats, suits, pants, skirts and outerwear with a 100% wool label. Select a variety of colors. Dark blues, blacks, brown, maroons, greens and plaids are easiest to find. Light and white are a rare find. Other sources for used wool are rummage and yard sales, consignment, and military surplus shops. You may also purchase wool from fabric stores; however, this is most expensive. Select lightweight wools for the appliqués. They are found in dresses, shirts and pants. Heavyweight wools work well as the foundation of the project. Coats and outerwear are often made from the heavyweight wools.
2. Sort the wool items into piles by similar colors: navy, black and brown together, red and purple together and light colors in another pile. Trim off the selvage if using wool yardage. The selvage will not felt like the rest of the yardage because it is of a different weave. Take the wool garments apart at the seams using a seam ripper and scissors. Cut away all lining fabric and buttons before washing.

Felting Wool

3. Place each one of the sorted wool piles into the washing machine. Wash the wool on the hottest and longest wash cycle and rinse with cold water. Use a minimal amount of water so that the wool is crowded in the washer. One or two wash cycles will be enough to felt the wool. During the rinse cycle check for **colorfastness**, meaning the colors will not bleed or run. If the wool is not colorfast, try two or three washings. You may also try setting the color by adding $\frac{1}{2}$ cup vinegar and $\frac{1}{4}$ cup salt to the wash.
4. Dry the wool in a dryer on the longest and hottest drying cycle after each wash. Clean the dryer lint trap between each drying cycle.

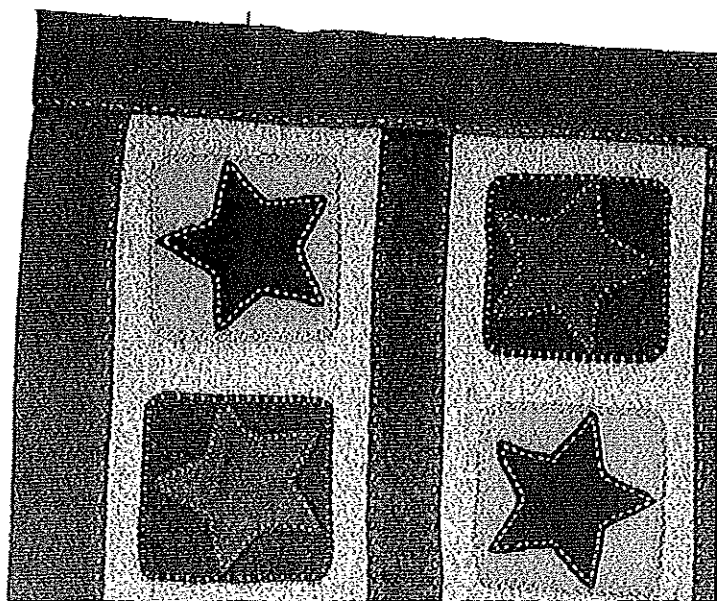
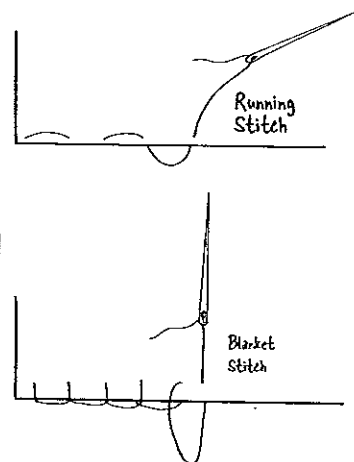
Preparing Foundation and Appliqués

5. Start with a mat foundation by selecting the largest felted wool piece, about 18" x 24". A smaller or larger size is fine. Cut the foundation using a straight edge ruler or quilter's ruler and a rotary cutter.
6. Design your project. Select the shapes of the felted appliqué for the top of the mat. When planning, you may want to have several layers of fabric to create texture and depth. Keep corners at 90° and edges rounded. Sharp points are difficult to stitch around. Select two to three different shapes and repeat the pattern on the foundation piece. Consider the total space of the foundation by arranging the pieces so that the space is used evenly, but not crowded.
7. To create the pattern pieces lay a transparency over the piece and trace with a permanent maker. Cut out the pattern transparencies. Lay them out on the various pieces of felted wool fabric getting the best fit using the least amount of fabric. Remember, you may be cutting multiple pieces of the same pattern, so plan carefully. Using a ballpoint pen, trace around each transparency. Cut out the felted pieces and set aside. Continue tracing and cutting until you have all the felted wool pieces cut.
8. On the foundation, lay out the first layer of design pieces. Pin in place.



Appliquing

9. For thread select either embroidery floss or size 5 pearl cotton that enhances the design. Contrasting floss/pearl cotton helps the felted pieces stand out while a matching thread blends with the felted pieces or the foundation. Using both contrasting and matching thread colors gives variety to the overall design. Embroidery floss comes in a variety of colors and is inexpensive, but softer and may not wear as long. The floss works well if your project ends up as wall or table art. Pearl cotton is sturdier than floss, has sheen and makes a nice edge. It comes in few colors, but it wears well if your project ends up on the floor as a rug.
10. If working with floss, separate it into three strands, and then thread a size 7 embroidery needle. Use a size 5 needle for pearl cotton. Cut either thread to 24" lengths. The needle eye should be large enough to accommodate the thread.
11. Begin stitching felted pieces to the foundation. Work until the entire first layer pieces are stitched in place. Add the second layer pieces following steps 9–11. Add the third layer pieces in the same manner.
12. Back the project with a heavy duck or canvas fabric. It is necessary to cut the backing fabric one inch larger in length and width than the foundation. Fold and press with an iron the backing fabric edges $\frac{1}{2}$ " towards the wrong side of the cloth. With wrong sides together, blanket-stitch the backing to the foundation.



Reflect

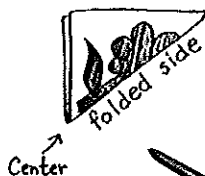
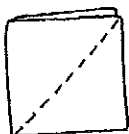
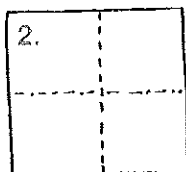
- Which colors were the hardest to find when shopping?
- Compare the different types of wool before and after felting. Which wools felted tightly and which ones did not?
- How did you develop your design? Did you select one layer? Two, or three?
- When laying out your design, how did you achieve balance?
- How do the colors you used and the design reflect you?

Imagine

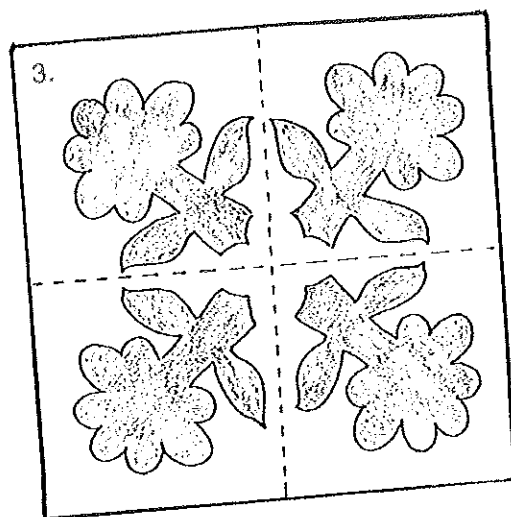
1. Try creating another appliqué with more details. Add three layers to the foundation.

Or, try using a Hawaiian inspired design. Hawaiian designs are a four-quadrant design with the pattern repeated in each quadrant. Traditionally, a floral pattern is used.

2. By folding a square piece of paper into quarters, a four-quadrant design is formed. Then fold one more time on the diagonal so that you have a triangle shape. Draw a simple design along the longest side (fold). The paper design is now your pattern piece.



3. Cut out the design. With a cool iron flatten the paper design.



4. Follow step 7–11 above.
5. Use two new stitches on the felted pieces.

- How was the second artwork more of a challenge than the first one?
- What other ways can the appliqué process be used?
- How does the artwork express something about you?
- How else do you express something about you without using words?
- Are you projecting the qualities you want to other people to know about you?



Sketchbook Entry

Save samples of the wool fabric before and after felting and tape into your sketchbook. Label "before felting" and "after felting". Draw your design for the first artwork in your sketchbook. Photograph your felted artwork and add the photograph to your sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Art-i-fact

Felted wool is a fabric without grain because the fibers are matted together in all directions. Wool fibers have a scaly surface. When moistened, heated and agitated, the fibers hook onto each other's scales causing matting.

Learning Indicators

Through creation and imagination I:

- ☐ Selected several colors of wool fabric.
- ☐ Felted wool.
- ☐ Used color and space in the artwork to create balance.
- ☐ Designed an artwork that reflects me.

Acknowledgement: Textiles Properties and Behavior, Edward Miller, Theater Arts Books, New York, 1968.

Activity written by Maureen Toomey.

Working with Cotton Linter

In the Studio: Using cotton linter pulp, create forms by casting or shaping.

Life Skill:

Problem solving

Youth Outcome:

Uses cognitive abilities and processes to find solutions

National Art Education Standard:

Understanding and applying media, techniques, and processes

Materials:

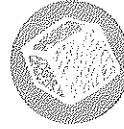
- ☐ Cotton linter sheets
- ☐ Blender
- ☐ Water
- ☐ Sieve
- ☐ A variety of terracotta or porcelain molds
- ☐ Powder paper clay, glue, liquid starch (white)
- ☐ Paper towels
- ☐ Cooking spray
- ☐ Sponge
- ☐ Towel
- ☐ Oven
- ☐ Colored pencils, soft
- ☐ Small bowl or containers
- ☐ Optional—threads, floss, sequins, paper dots, dried leaves or flowers

Design Elements:

Form and texture

Design Principle:

Unity



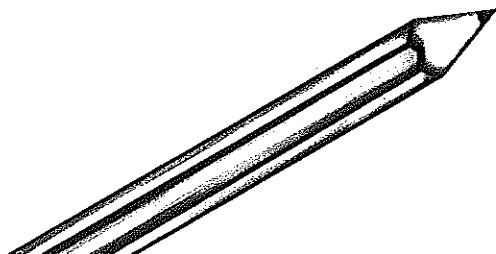
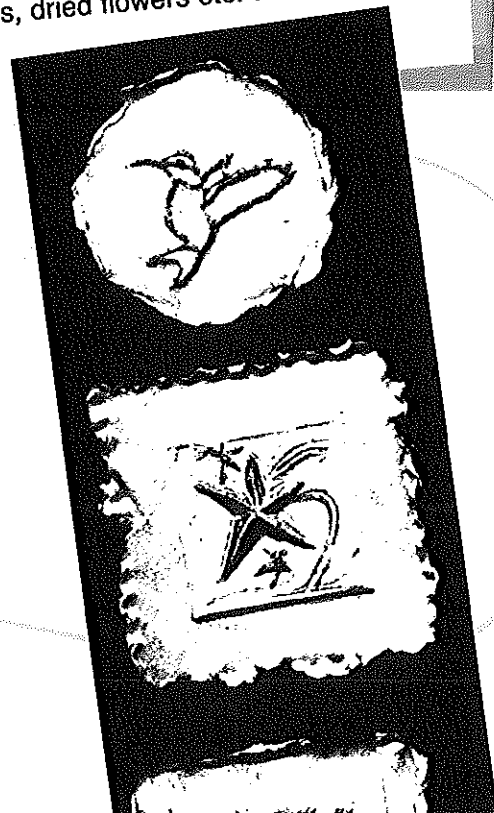
Artist Notes – Exploring Cotton Linter

Cotton, derived from an Arabic word **quoton** or **qutun**, is an ancient fiber. It is classified as a **cellulose** (plant) fiber and varies in length. The longer fibers are used in making cloth. The shorter fibers are called **cotton linter**. Cotton linter is used to make papers and boards. Cotton fibers are not very elastic and resilient; therefore, cotton fabric tends to wrinkle easily. But the fibers are soft and absorbent and make comfortable cloth. Insects seldom damage the cotton fibers, but fungi (mildew) may destroy or stain the fiber. Much has been written about the origins of cotton. Historians have put the origin in a number of locales such as Egypt, India and regions of South America. However, it is now accepted cotton was likely indigenous to all of these warm, humid regions, and cotton production developed simultaneously across the globe.

The **cotton gin** separates out the long staple fibers used for weaving from the tiny fibers left attached to the seed. It is the smallest of cotton fibers which makes the cotton linter used in this activity. The linter fibers are shaved off the seed and used to make a variety of paper products.

Your Challenge

Experiment with cotton linter using molds and shaping the linter to form bowls. Enhance the cotton with colored pencils, threads, floss, dried flowers etc. to make a unique creation.

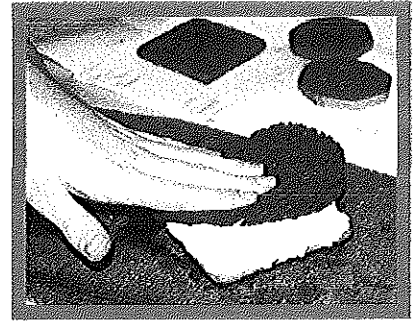


Create

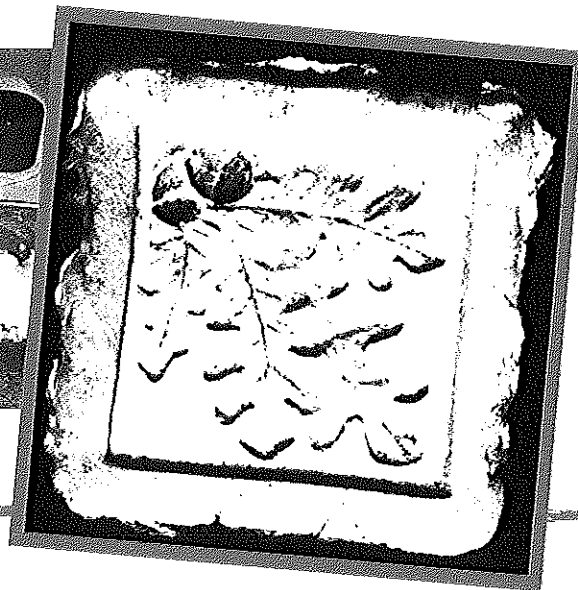
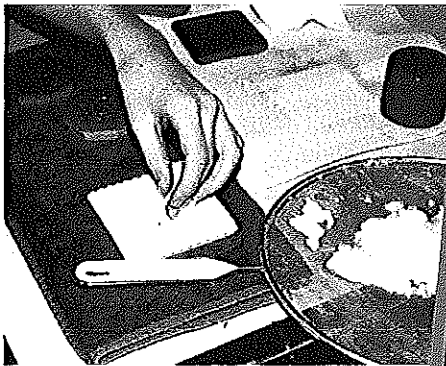
1. Tear a cotton linter sheet (approximately 5" x 8") into 1" pieces and place in a blender.
2. Add approximately one quart of water to the blender and soak linter for 15 minutes.
3. Blend until the linter forms a fluffy pulp. Add 1 teaspoon powdered paper clay, glue or liquid starch. Blend on high for one minute.
4. Working over a sink, pour about one cup of pulp into a wire mesh strainer, draining off the water. Set aside.



8. Press the pulp into the mold with a sponge. Wring out the sponge and repeat removing as much water as possible.



9. Add pulp, as needed, so that the mold is completely filled and level. Repeat step 8, if necessary.
10. Using a towel, press the pulp firmly, extracting the last bit of moisture and ensuring that the pulp is pushed completely into the mold.
11. Place the mold on a rack in a 150° oven for about 2 hours to dry.
12. When the pulp is completely dry, remove the mold from the oven. Cool, and gently pry the linter out of the mold, using the edge of a knife if necessary.
13. Lightly color details of the form with color pencils.



Reflect

- Describe the details of the cotton linter form(s).
- Describe the texture of the form(s).
- What was the hardest part in using the cotton linter?
- What did you add to the form to create unity?

Imagine

1. Make another batch of cotton linter pulp following steps 1–5.
 2. Taking a small handful of pulp, press it against the inside of a bowl, adding pulp as needed in order to cover the entire surface. The top edges may be jagged.
 3. Lay threads, floss, sequins, paper dots, dried leaves or flowers on top of the pulp, creating a design.
 4. Press the sponge against the pulp, soaking up the excess moisture, and wring the sponge out. Repeat so that the cotton fibers mold together.
 5. Air-dry for several days.
 6. When dry, gently pry the cotton linter from the sides of the bowl.
- How is the texture of the bowl different from the forms?
 - How did you go about deciding on what forms, bowls and decorative objects to use?
 - How can you use this process to create a different type of artwork?
 - Try to identify and name the process or steps you used to make your choices.
 - Think about other parts of your life where you make decisions. How would the process or steps you identified to make decisions about your linter project help you make decisions in this other situation?

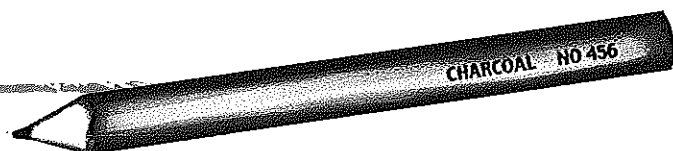
Simplify

You may use recycled paper instead of cotton linter, following the same steps as above. However, the forms will be hard and brittle with less texture.

Enhance

Use a variety of bowls and three-dimensional objects to create different forms.

Doodle here ...



Sketchbook Entry

Select two or three of the most interesting cotton linter artworks and mount them on sturdy cardstock or mat board. Select your favorite bowl, photograph it, and add the photograph to your sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Art-i-fact

Eli Whitney changed the cotton industry of the southern United States within days of seeing how cotton was hand picked and seeded. In 1793 he designed a machine, the cotton gin, that removed the seeds from the cotton doing the work of several laborers in one hour. The name "gin" is short for engine.

Learning Indicators

Through creation and imagination I:

- ☐ Figured out how to best shape the pulp in order to fit the molds.
- ☐ Used texture and form to create a sense of unity in the artwork.
- ☐ Tried using additional materials to give the artwork unity.
- ☐ Identified steps to find solutions to challenges that could work in other situations.

Acknowledgement: Introductory Textile Science, Marjory L. Joseph, Holt, Rinehart and Winston, 1977.

Activity written by Maureen Toomey.

Batik

In the Studio: Using dye and wax, create a unique fiber artwork.

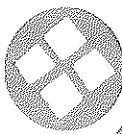
Life Skill:
Communicating

Youth Outcome:
Integrates feelings, thinking, and actions into social competence

National Art Education Standard:
Using knowledge of structures and functions; Understanding the visual arts in relation to history and cultures

Materials:

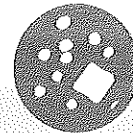
- ☐ Muslin, natural color 100% cotton fabric, washed to remove sizing and dried
- ☐ Wooden frame or embroidery hoop, approximately 10" x 13"
- ☐ Thumbtacks
- ☐ Pencil
- ☐ Cold-water dyes (three colors)
- ☐ Large tubs for dyes
- ☐ Paraffin or beeswax (may be a mixture of both)
- ☐ Tongs
- ☐ Brushes for wax or tjanting tool
- ☐ Electric skillet or small crock-pot
- ☐ Cup cake tin
- ☐ Iron
- ☐ Rubber gloves
- ☐ Newsprint



Design Elements:
Color, line and shape



Design Principle:
Emphasis



Artist Notes – Origins of Batik

Batik is an old art form practiced in many countries across the globe. It is difficult to say where batik originated, but most likely Asia. Ancient samples of clothing with batik designs have been found in the Far East, Middle East and Central Asia. These samples date to 2000 years ago. The name batik comes from the island of **Java**. The Javanese word "**tik**" means to dot. Batik involves a process of waxing a design on natural fiber fabric and dyeing the cloth. Where the wax is, the dye does not penetrate the fabric. A second and third round of waxing and dyeing produces a unique design. The wax is then removed leaving a beautiful, intricate artwork. This method is called **wax resist**.

Java, an island of Indonesia, is best known for batik. Cotton, beeswax and plant dyes are readily available for batik. Along the coast, trade from China, India, Arabia and Dutch colonies influenced designs. Javanese batik is accomplished by using two different methods. Using a **canting** tool, a small copper cup with a bamboo handle, hot wax is dripped and drawn on cloth creating a design. Javanese women traditionally use this wax resist method while the men use a copper-stamping tool dipped into hot wax and pressed on the cloth. The design is repeated and stamped on both sides of the cloth.

Many parts of Africa use batik to decorate textiles. Nigeria and Mali have the most skillful batik artists. The **Yoruba** people of **Nigeria** create **adire clothes** using a paste resist method. Rather than using wax, a **paste** made from the cassava plant is applied to the cloth with a fine bone, comb-like stick, or forced through a thin metal stencil. The use of this stencil, allows for repeating the process across the cloth, creating a uniform pattern. The **Mali Bamana** people weave narrow cotton strips of cloth. The cloth is dyed yellow, and then river mud is applied which turns the design dark brown. The yellow dye is then removed by bleaching the non-mud areas of the cloth, thereby returning the cloth to its original white hue. The batik is referred to as **mud cloth**.

Safety: Wear gloves when dyeing to avoid exposing skin to the chemicals in the dye bath. Extreme care should be taken when working with liquid wax, skillet and iron. Hot wax or paraffin may give off toxic fumes and can cause reactions in asthmatic youth. Work in a well-ventilated area or set up your workstation outside. Wax and paraffin are very volatile. Keep a close watch on the temperature setting. Don't overheat or boil the wax. If the wax begins to smoke, turn off the heating source for a few minutes. When ironing wax out of the cloth, work in an open area keeping a careful watch on the iron temperature setting.

Your Challenge

Create a unique fiber artwork using dyes and wax. The wax resist method requires planning of the design. Keep in mind when two dye colors are mixed, they will change colors. For example, if your first color is yellow and the second is blue, you will end up with green in your design. When dyeing, work from the lightest color first to the darkest color.

Create

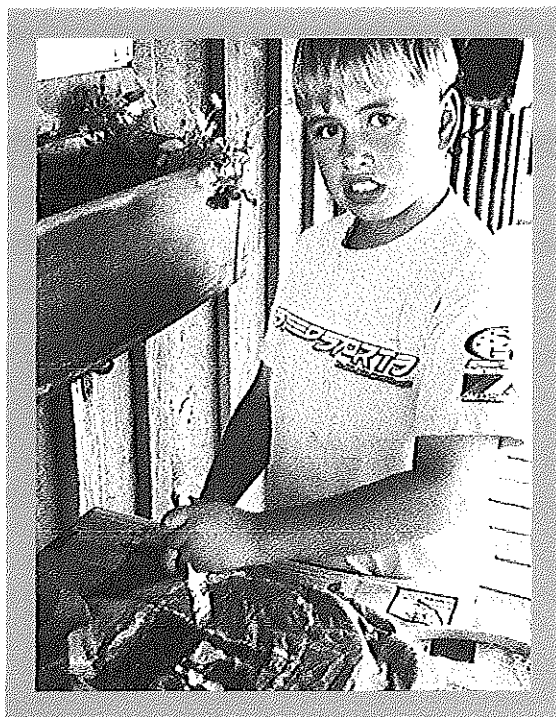
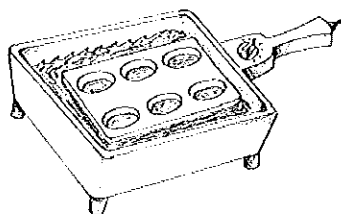
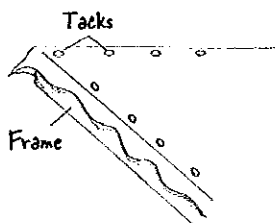
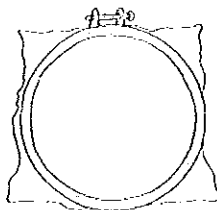
1. Lightly draw a design on the piece of muslin with a pencil.
2. Stretch the muslin across a wooden frame and hold the muslin in place with thumbtacks. Melt wax in a tin using an electric skillet and water bath.

3. Consider what dye colors you want to use. Select two for your first batik. Mix the cold-water dyes according to manufacturer's instructions. The base color can be the natural muslin (cream).

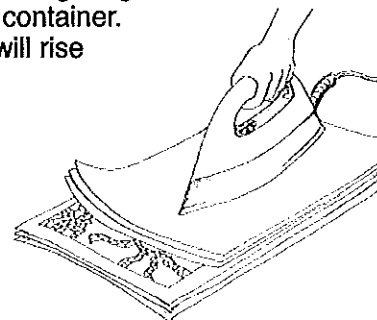
4. Dye small samples of the muslin in order to test for colors. Wax half the sample then use these as your color template. Practice applying wax on the muslin. If the wax is not enough it will penetrate the cloth immediately. If the wax is too cool it will stay on the surface.

5. Remember, that any line you want to remain a cream color needs to be painted with hot wax. Use a tjanting tool or paintbrush to create the lines. Let the wax harden.

6. Remove the cloth from the frame and dip the cloth into the first dye bath of the lightest color. Follow the manufacturer's direction for dyeing length of time. Optional: Wad up the cloth, breaking up the wax, creating creases and lines in the wax. The dye will penetrate these creases.
7. Using the tongs, take the muslin from the dye bath, then spread it on the newsprint or hang to dry.



8. Stretch the cloth across the wooden frame and hold in place with thumbtacks.
9. Using the tjanting tool and/or paintbrush, create the lines for any part of the cloth which you want to remain in the lightest color. Now you have two colors, the cream of the muslin and the first dye color.
10. Dip the cloth into the second dye bath. Follow the manufacturer's direction for dyeing length of time. Using the tongs, take the muslin from the dye bath and then spread it on the newsprint or hang to dry.
11. You may wish to wax the entire cloth now, setting the final color or leave it as it is.
12. Place the batik muslin between three layers of newsprint. Begin ironing the muslin with a hot iron. Replace the newsprint, both top and bottom, as it soaks up the wax and very little is left in the muslin. The muslin will still be stiff, but the majority of wax will have been removed. You may also boil a pan of water, add $\frac{1}{8}$ cup dish soap. Next to it fill a large container with cold water. Add the batik to the boiling water for 2-3 minutes. Using tongs move the batik to the cold water container. The excess dye will rise to the top of the fabric. Rub off lumps of wax.



Reflect

- What types of lines did you use?
- How did the colors change when wax was added?
- How do the lines, colors and shapes create emphasis?
- What was the most difficult part of this project? The easiest?
- What would you do differently the next time you batik? What would you do the same?

Imagine

1. Follow the same step as before, except, use a metal cookie cutter dipped in hot wax and stamp it across the cloth like the Javanese men do.
2. Try using paste, purchased from an art supply company, to create paste resist batik like the Bamana of Mali.
3. Search the Internet using the word *batik*. Read about different methods of batik around the world.



- Locate Mali and Java, Indonesia on a map. Why might they use cotton cloth to batik?
- Describe any thoughts, feelings or action conveyed in your batik?
- What are other situations in your life where you communicate without speaking?
- What are appropriate ways to communicate the message you want to convey without speaking?

Art-i-fact

A pencil-like tool called a *tjanting* is used to draw intricate designs on fabric with hot wax, creating true batik. It is similar to a canting tool.

Pysanky eggs are a tradition in the Ukraine dating back thousands of years. Eggs were decorated using the wax resist method in order to celebrate the coming of Spring. Black and red are common colors used in central Ukraine, while green, orange, yellow, and brown are used in the Carpathian mountain region.

Learning Indicators

Through creation and imagination I:

- ☐ Used lines, colors and shapes in my batik.
- ☐ Created emphasis in my batik using several elements.
- ☐ Communicated an idea to others.
- ☐ Learned about the history of batik and the cultures that have mastered batik techniques.



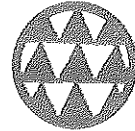
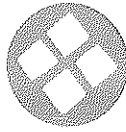
Sketchbook Entry

Add the color test samples to your Sketchbook. Photograph your batik artwork and add the photograph to your sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Weaving on a Lap Loom

Design Elements:
Color and Texture

Design Principle:
Pattern



In the Studio: Set up a lap loom and create a weaving.

Life Skill:
Self-motivation

Youth Outcome:
Thinks for oneself and makes necessary effort for action

National Art Education Standard:
Using knowledge of structure and functions

Materials:

- ☐ Lap loom
- ☐ Warp yarn or string
- ☐ Weft yarn, string, ribbon, etc.
- ☐ 2 shuttles
- ☐ Scissors
- ☐ 2 shed sticks
- ☐ Ruler
- ☐ Crochet hook, size 3-11
- ☐ Large blunt needle

Artist Notes – Lap Loom Weaving

Weaving is the interlacing of threads, usually length-wise and cross-wise. A loom holds the length-wise threads. The **warp** threads run the length of the loom. The warp must be strong without stretching and tightly strung on the loom while allowing some flexibility. They are often not seen when weaving is complete. The cross-wise threads are the **weft**. The weft is woven over and under each warp. It is usually what makes the design. The weft is woven over the first warp, under the second, over the third warp, under the fourth, etc. An easy way to remember which thread is warp and which is weft is you *weave the weft*. The weft makes the **web**, holding the weaving together. A **shuttle** is a stick with indented V shape or semi-circular ends around which the weft yarn is wrapped. A shuttle is a quick way to pass the weft between the warp. The **shed** is the space between the warp threads through which the weft is passed. Using a **shed stick** lifts every other warp thread allowing the shuttle to pass easily through the shed. The weft is **beaten** down into place making the weaving tight each time the shuttle passes through a shed. A **beater fork** or shuttle may be used to compress the weft to make the weaving as even as possible.

Lap loom weaving is done on a flat loom that fits comfortably on your lap. The size can vary, but a comfortable size is 24" x 18". To make a lap loom, purchase two sets of wood framing at an art supply store. The framing will have rabbit joints and mitered corners. Reinforce the corners with small right-angle joints that can be screwed into the wood. Add an even number of finishing nails, spaced about 1/4" apart on the shortest sides. The rows at each end should be parallel to each other. Other options for a lap loom are to use a recycled picture frame from a second-hand store or purchase a loom from a yarn shop.



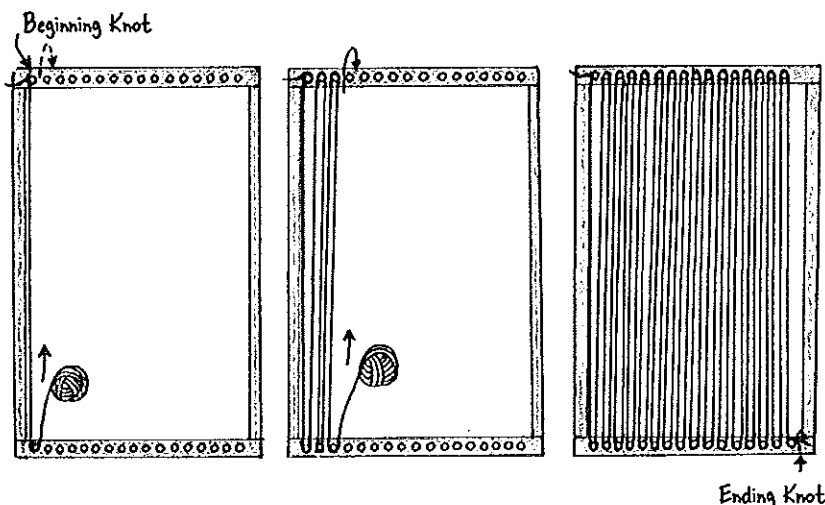
Your Challenge

Follow the steps for Warping a Loom and then begin experimenting with weaving. Try using several colors and types of yarns. Once you are comfortable with the process, explore the Imagine section, A Variety of Weaves.

Create

Warping the Loom

1. Begin by tying the warp to the first peg on the top of the loom. Tie it with a single knot and leave 2" of thread hanging.
2. Wind the warp down around the bottom first peg and back up to the top first peg. Do this twice so that the edge of the weaving will be stronger.
3. Take the warp back down to the second bottom peg, around it, and back to the top of the second peg.
4. Continue wrapping up and down around the pegs until you reach the last peg. As you wind the warp, keep the tension tight and even all the way across.
5. Again, wrap the warp around the last peg to give the weaving edge strength. Tie the warp off on the last peg, leaving a 2" tail.

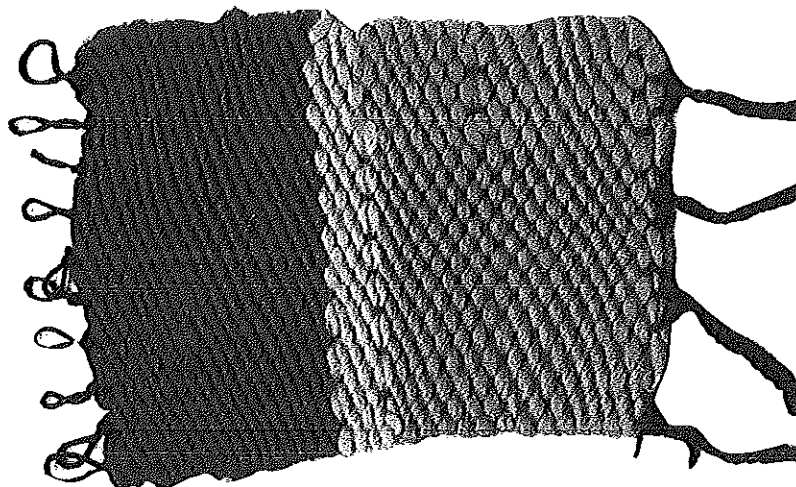
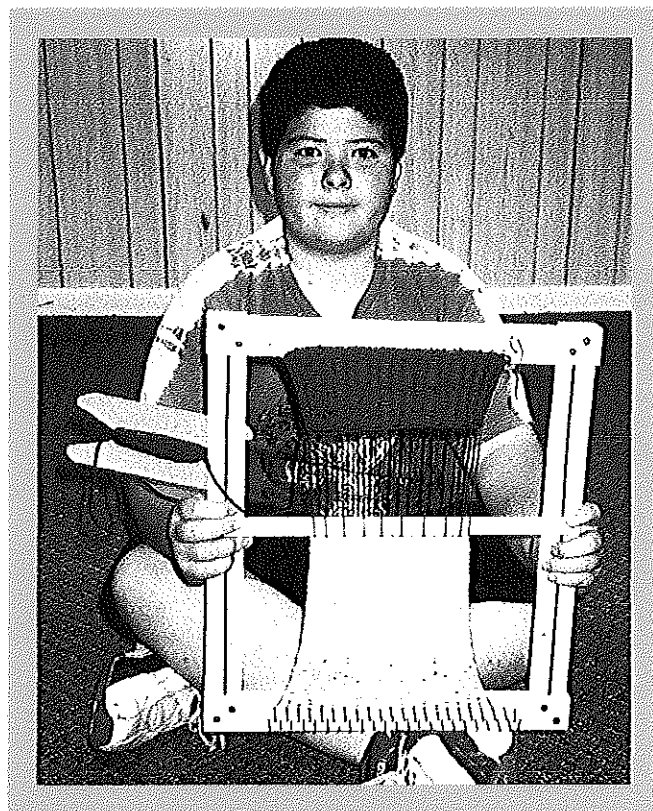
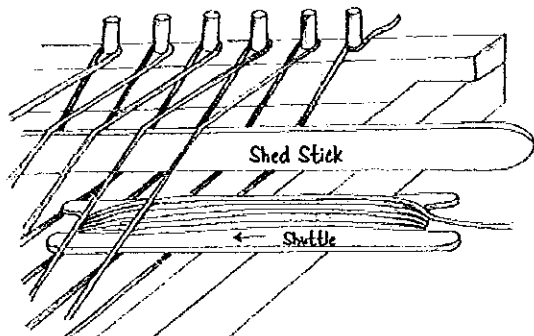


Shuttle the Weft

6. Wrap weft yarn around the shuttle. Do not get it too thick or the shuttle will not pass through the shed. More yarn can always be added to the shuttle.

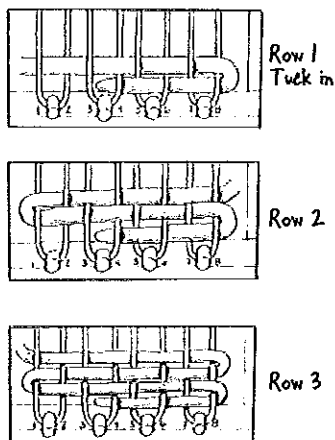
Weaving Row One

7. You may begin from either the right or left side of the loom. With the lap loom in front of you, pegs at the top and bottom, slide the **shed stick** under warp 1, over warp 2, under warp 3, over warp 4, etc., all the way across. Turn the stick on edge so that it opens up the shed. This is shed #1.
8. Pass the shuttle through the shed to the other side. Leave a 3" tail. Tuck in the tail between the warp. Flatten the shed stick and beat the weft.
9. Slide the shed stick up to the top of the loom.



Weaving Row Two

10. Row two begins on the opposite side of the loom. With the **second shed stick**, make a shed by sliding it over warp 1, under warp 2, over warp 3, under warp 4, etc. all the way across. Turn the stick on edge. This pattern is opposite of the first row. Pass the shuttle through all the way across; beat the weft into place. Pull out shed stick 2.
11. Slide shed stick 1 down to the middle of the loom, turning it on edge to create another shed. Turn the shuttle around and begin again. Remember to beat the weft after each pass to keep the weaving tight and uniform. *Note: Shed stick 1 stays in the warp. Shed stick 2 is always woven through the warp and pulled out each time the weft passes and beating is completed. Avoid creating an hour glass shape at the edges. Keep the weft slightly loose at the end of each turn, leaving a loop on the selvage.*
12. Continue weaving by making a shed, passing the shuttle through and beating down the weft. *Note: This is a plain weave.*

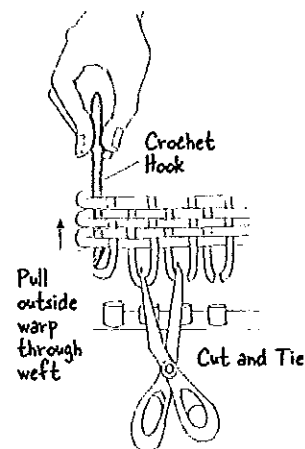


Switching Weft Colors

13. Wrap a second shuttle with a new color of yarn.
14. To begin a new color, overlap first color with the second color weft several inches from the edge.
15. Pass the second shuttle through the shed and continue weaving the desired number of rows.
16. Another option is to start a second shuttle, and weave one shuttle at a time, alternating between shuttles. The two colors interlock at the edges. This creates a vertical bar weave.

Finishing the Weaving

17. Weave as close to the pegs as possible. You will need to remove shed stick 1 when the shed becomes too small to pass the shuttle.
18. On the last pass, leave a tail of weft. Thread the tail into a needle then stitch the weft discreetly into the weaving.
19. Gently lift the warp off of each peg, starting at one side and working across the loom.
20. Using a crochet hook, carefully slide it up through several rows of weft and grab the outside warp at the corner. Pull the warp, which was tied to the outside pegs, down through the weft. Do this at each corner.
21. Each loop of warp can be stitched into the weaving with a needle and thread, or they can be cut in half and tied together. Fringe may also be added to the ends.



Weaving Tips

- Pass the shuttle through the shed at a 45° angle. This allows you plenty of weft yarn to cover the warp.
- Start the beating from the same side as where the weft was started. This will help keep the weft uniform.
- It takes practice to keep the weaving edge straight. Do not pull too tight when passing the weft through the shed. Also, don't leave a large loop at the end of the weft making the edge look lumpy and too loose.

Reflect

- Describe the texture of your weaving.
- How did the colors and thickness of the warp and weft threads work together to create a pattern?
- What was the hardest part for you in setting up the lap loom?
- What would you do differently the next time you use your lap loom?

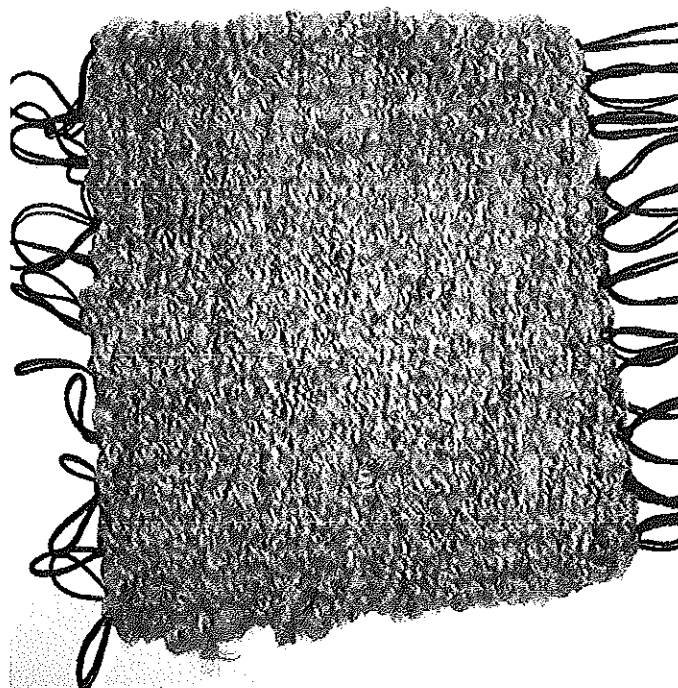
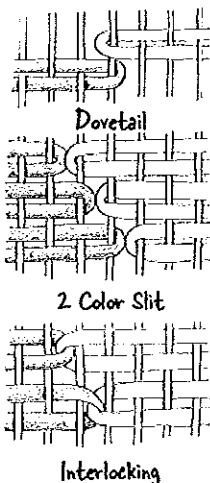
Doodle here

Imagine

1. Plan out a second weaving. Try using several different weft threads to create a variety of texture.
2. Warp the lap loom.
3. Use two of the following weaves.

A Variety of Weaves:

- **Basket** – This is similar to the plain weave except that you begin with over 2, under 2, over 2, under 2, etc.
- **Twill** – Begin weaving with over 2, under 2, over 2, under 2, etc. in the first row. The second row is under 1, over 1, under 1, over 1, etc. The third row is over 2, under 2, over 2, under 2, etc. The fourth row is under 1, over 1, under 1, over 1, etc.
- **Herringbone Twill** – Begin weaving row with under 1, over 3, under 1, over 3, etc. The second row is over 3, under 1, over 3, under 1, etc.
- **2 Color Dovetail** – In one direction, pass the shuttle through the shed to the center. From the other side pass the second color on the shuttle through the shed meeting the first color. They will encircle the same warp. Pull the shuttles up through the web and rest on top of the weaving. Start a second shed. Beginning in the middle of the weaving, pass the shuttles in opposite directions through the shed. Now there is a shuttle on both edges of the loom. Start a third shed. Pass the shuttles inward towards the center. Repeat the process.
- **2 Color Slit** – Like the dovetail, the two wefts in the same shed meet but turn around separate warps.



- **Interlocking Colors** – Like the dovetail, the two wefts meet in the same shed, except they interlock between two warps. Color patterns can be created with both the dovetail and interlocking weaves by switching at the warp where the two colors meet.
- How would you add a third color to the weaving?
- Which weave was the most challenging? Why?
- Weaving requires considerable concentration to manage the loom, the weft material and controlling the design to create the desired pattern. How did you keep focused on your weaving project to get the desired results?
- Think about other areas of life that require you to concentrate. What motivates you when you have a task you do not want to do?

Art-i-fact

The roots of Navajo weaving are buried deep within the heart of the American Southwest. They took hold around 1000 years ago when ancient farmers called the "Anasazi" wove on very primitive upright looms. Their descendants, today's Pueblo Indians, grew their own cotton and further refined the weaving techniques passed down by their ancestors. In the 17th century Spanish settlers introduced the Pueblo Indians to wool from the churro sheep. The nomadic Navajos arrived from the north and learned the weaving techniques from the Pueblo Indians. Navajo weaving is really a blend of these ingredients: the upright loom of the Anasazi, the weaving techniques of the Pueblo people and the wool from the Spanish. This recipe makes the most spectacular rugs and tapestries that have been coveted by collectors for more than a century.



Sketchbook Entry

Tape samples of the warp and weft threads into the sketchbook. Plan your second weaving by drawing the pattern with colored pencils. Consider answering the Reflect and Imagine questions in a sketchbook.

Learning Indicators

Through creation and imagination I:

- ☐ Understand and can use weaving terms.
- ☐ Warped the lap loom.
- ☐ Used a variety of colors and thread types to create texture and pattern.
- ☐ Completed two weavings experimenting with a variety of weaves.

Inkle Loom Weaving

In the Studio: Learn a unique type of weaving on an inkle loom.

Life Skill:

Self-motivation

Youth Outcome:

Thinks for oneself and makes necessary effort for action

National Art Education Standard:

Using knowledge of structure and functions

Materials:

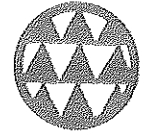
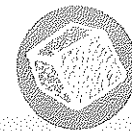
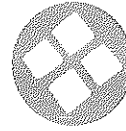
- ☐ Yarn or pearl cotton, several colors and textures
- ☐ String, cotton
- ☐ Scissors
- ☐ Darning needle
- ☐ Inkle loom
- ☐ Shuttle

Design Elements:

Color and texture

Design Principle:

Pattern



Artist Notes – Weaving on an Inkle Loom

The inkle loom produces a long narrow woven band. Weavings of long strips or bands have been used for centuries and found in many places around the world. The inkle loom was probably designed between the 18th and 19th centuries in Great Britain. Some sources indicated that the word *inkle* might be of either Dutch or Scottish origin. In either case, it means narrow band or strip; braided linen tape. The inkle loom weaving is unique because it is the warp threads that create the design. The weft threads won't show except at the edges. Using several colors of warp will create a pattern in the inkle weave.

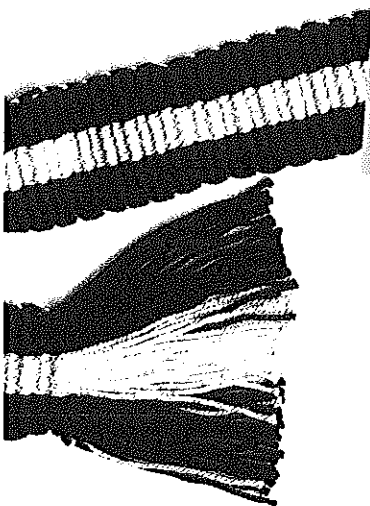
Before starting a weaving, here are terms you will need to know and understand. The **warp** threads run the length of the loom. The cross-wise threads are the **weft**. The weft is woven over and under each warp. **Heddles** are looped strings that hold half the warp threads in one position on the loom. They are placed on alternating warp threads. The other half of warp threads are lifted or lowered to create a space for the weft shuttle to pass. This space is called the **shed**. The shed allows for quicker weaving by not having to move the weft over and under each warp. With the inkle loom, two sheds will be created. The warp threads, once on the loom, are called **cords**.

Before beginning this activity, an inkle loom will either need to be purchased or built. See the blueprint at the end of the activity to construct an inkle loom or search the Internet to purchase one.



Your Challenge

Follow the Create steps for making heddles and Warping the Loom. Once you start weaving the process becomes easier. Try several weavings, experimenting with both color and yarn or pearl cotton. Each will give a different texture and pattern and provide a variety of challenges. Remember, it is the warp that creates the design.

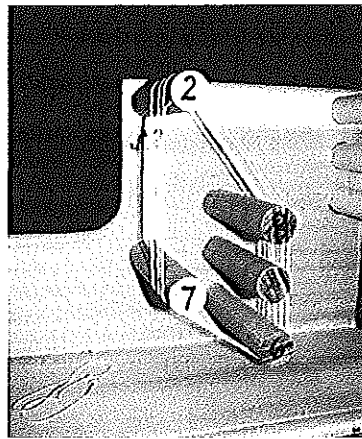


Create

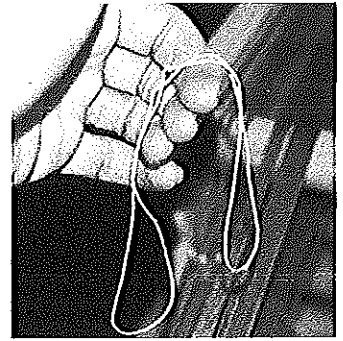
1. Using cotton string, make 20–30 heddles by cutting string lengths long enough to tie around pegs 2, 6, and 7. Tie in a square knot. Set aside.
2. Wrap the yarn skein into a ball for easy handling. The best way to start the ball is to pull the yarn out from the center of the skein.
3. Set the tension bar (Peg 1) on the loom in the middle of its range.

Warping the Loom

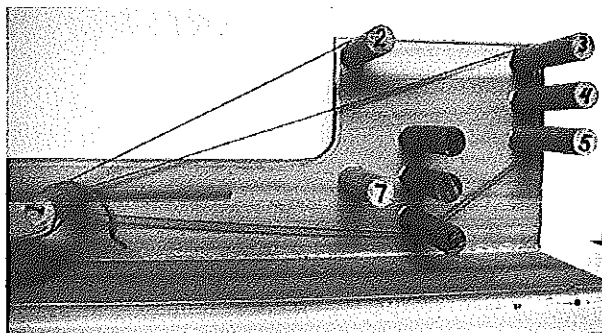
4. Using a half-knot, tie the end of the yarn to the tension bar. Leave a 12" tail. The yarn will be untied as the weaving progresses.
5. With the yarn tied to the tension bar, loop the yarn under peg 2, over the top of peg 3, down the back past peg 4, around the bottom of peg 5, bringing forward under peg 6 and 7, and back to the tension bar. For the second pass, loop around the tension bar and go over peg 2, over the top of peg 3, down the back past peg 4, around the bottom of peg 5, bringing forward under peg 6 and 7, and back to the tension bar. The warp threads are called cords. Note: The yarn will go under peg 2 on the first pass and over peg 2 on the second pass and then under on the third pass, etc.



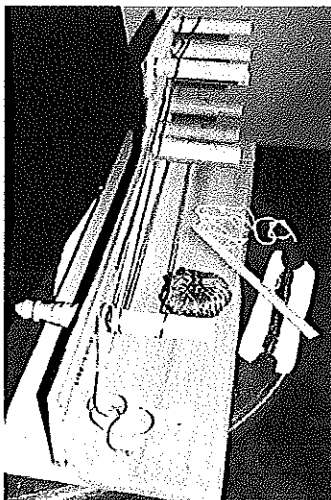
1. Making heddles



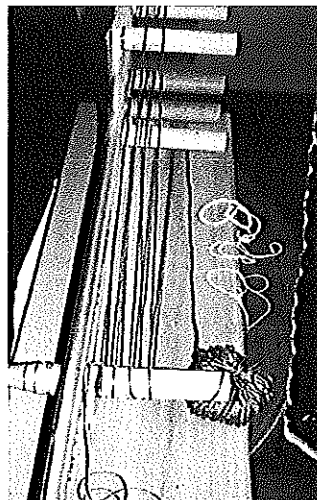
Doodle here ...



4. Setting up first yarn cord.



Second pass



Several passes



Art-i-fact

Bordado in Latin American countries means textile decorative forms other than needle-work. Some anthropologists think that the Pueblo people of the American Southwest were incorporating bordados into their weaving as early as the 1500's.

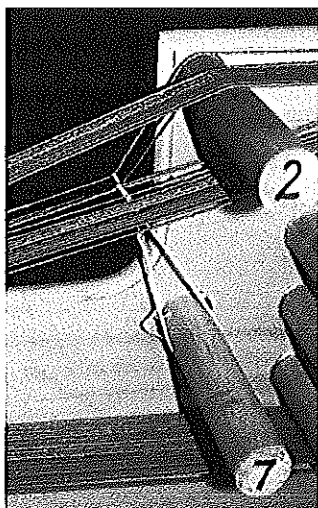
Heddles

6. Drape a heddle over each cord that passes over the top of peg 2, hooking both heddle ends over peg 7. The heddles will lie between the tension bar and peg 2. Adjust the tension as needed. The last warp thread will have a heddle.

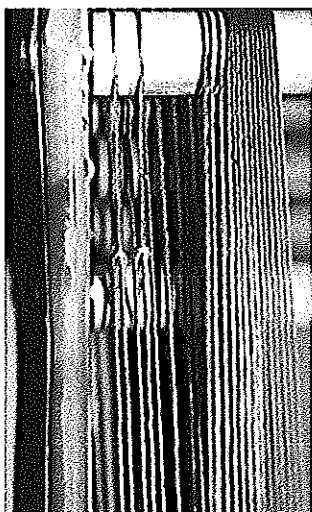
7. Continue to warp the loom, placing heddles on the cords that go over the top of peg 2. The warp can be any width as long as there is an even number of cords. The last warp thread must be over the top of peg 2.

8. Tie the yarn off on the tension bar, leaving a long tail. As the weaving progresses, the tail will need to be loosened and retied.

9. If you want to create a pattern, use two or three yarn colors, tying each with a half bow tie at the tension bar.



6. Heddle cords



6-7. Warps and adding heddles

Weaving Through the Sheds

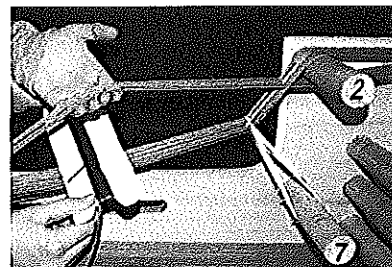
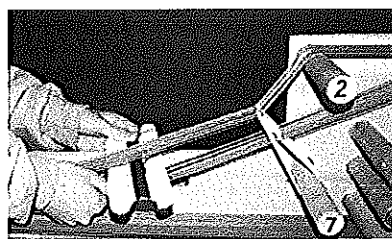
10. Set the tension bar to its tightest point.

11. Wind the weft yarn around the shuttle. More yarn can be added as you weave.

12. Position yourself with the tension bar closest to you. Sheds are created by pushing the unheddled cords up or down between the tension bar (peg 1) and peg 2.

13. Pass the shuttle through the first shed from right to left. The heddle cords will be on top and the unheddled cords will be on the bottom.

Leave a 6" weft tail on the side. Now, push the unheddled cords up, passing the heddled cords and creating a new shed. With the shuttle on the



13. Passing the shuttle through the sheds.

left, pass it through the new shed to the right. Note: The second shed has the unheddled cords on top and the heddled cords on the bottom.

14. Continue weaving the shuttle back and forth through the two sheds. As you weave, catch the weft tail and weave it with the shuttle. Soon it will disappear in the weaving.

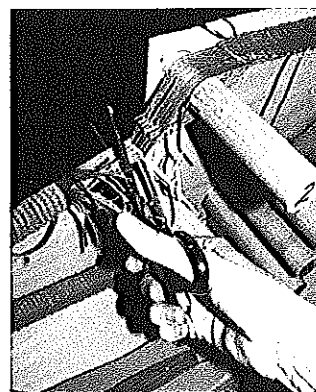
15. As you weave, use the beveled edge of the shuttle to beat down the weft as tight as possible.

16. After weaving 6-8", the sheds will become tighter. Loosen the tension bar and pull the whole warp towards you. Adjust the warp ends tied to the tension bar as needed. Tighten the tension bar, straighten the heddles, and continue weaving until done.

17. Cut the weft and leave a 6" tail. Thread it back into the weaving or tie it to the warp edge.

18. To finish the weaving, cut the warp cords removing the weaving from the loom. Remove the heddles and set aside. Tie the warp threads in knots with tassels in order to hold the weaving, or machine-sew the ends.

19. Set up the inkle loom again and try a variety of yarns and pearl cotton.



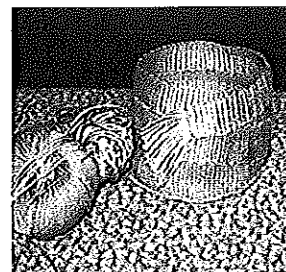
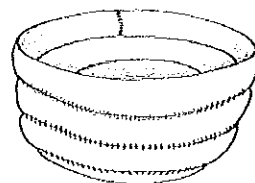
18. Cutting the warp of the loom.

Reflect

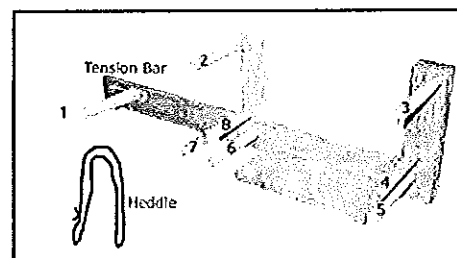
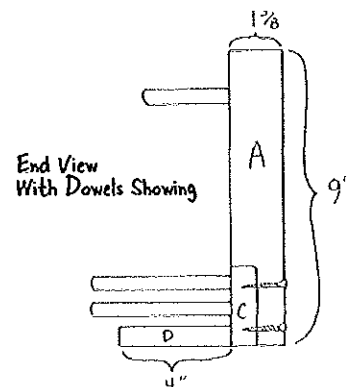
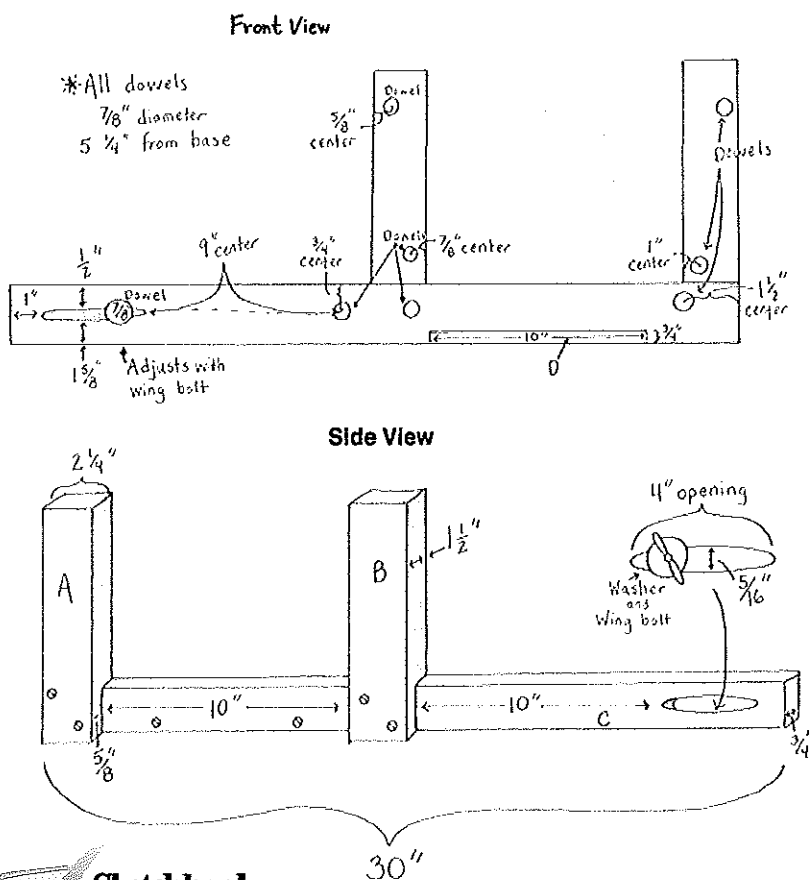
- Which of the yarn/pearl cotton created the most interesting texture?
- What color combination worked best in the weaving?
- What was the hardest part in using the inkle loom?
- How did you use color and texture to create a pattern?

Imagine

1. Weave 4–6 strips that are identical. Using a darning needle, hand-sew the strip together to create a larger piece.
 2. Sculpt a basket out of several woven strips by stitching them together in a spiral. Manipulate the strips to form the bottom of the basket.
- What problems did you encounter when stitching the strips together?
 - Using an inkle loom is novel and to be successful, you had to closely follow the instructions of this activity. What process or steps did you use to weave several strips to sew into a basket?
 - How did you break the steps down and allocate your time to help you be successful?
 - Think about another area of your life where there is a difficult task. Describe the strategy and how you would allocate your time to approach this difficult task.



Inkle weaving stitched to form a basket with felted wool bottom.



Learning Indicators

Through creation and imagination I:

- ☐ Warped the loom and added heddles.
- ☐ Used a variety of colors and thread types to create texture and pattern.
- ☐ Wove several strips that I stitched together, enhancing the weaving.
- ☐ Identified ways to allocated time to complete tasks in other situations.

Sketchbook Entry

Sketch out several color combinations that you used. Cut small samples of the fibers and tape into your book. Consider answering the Reflect and Imagine questions in a sketchbook.

Acknowledgement: Pueblo Indian Embroidery, H.P. Mera, Dover Publications, New York, 1995. Originally published by the Laboratory of Anthropology, Santa Fé, New Mexico, 1943.
Activity written by Maureen Toomey.

Dyeing to Experiment

In the Studio: Experiment and create a collection of natural dyes.

Life Skill:

Problem solving

Youth Outcome:

Uses cognitive abilities and processes to find solutions

National Art Education

Standard:

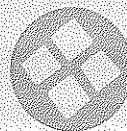
Understanding and applying media, techniques and processes

Materials:

- ☐ 2 Large non-aluminum pots or buckets (3–5 gallons)
- ☐ Tongs
- ☐ Wooden spoons
- ☐ Measuring spoons and cups
- ☐ Scale
- ☐ Plastic tarp
- ☐ Wire strainer
- ☐ Rock salt
- ☐ Alum (ammonium aluminum sulfate)
- ☐ Cream of tartar (potassium acid tartrate)
- ☐ Cider vinegar (acidic)
- ☐ Baking soda or ammonia (alkaline)
- ☐ Rubber gloves
- ☐ Dish soap
- ☐ Water (soft preferably)
- ☐ Towels
- ☐ Fiber samples 12" x 12" or small skein: white fabric—wool, silk, linen, cotton; yarn—wool; cording—cotton
- ☐ Hot plate

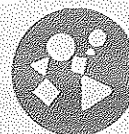
Design Element:

Color



Design Principle:

Variety



Artist Notes – Creating Natural Dyes

There are many sources of commercial dyes on the market today and many beautiful colors can be obtained. But it is just as interesting to try making dyes from plants. Dyeing with plants is a challenge because each plant reacts differently. Each dye material can yield varying colors, depending on the fiber, mordant, length of dye bath, temperature, and fixative, and there are many sources of natural dyes.

Dyeing with plants consists of three steps: Mordanting the fiber; making the dye bath; dyeing the fiber. There are two types of natural fibers: plant-based or cellulose and protein-based or animal. Cotton, linen, flax, sisal and ramie are **cellulose fibers**. Wool, leather and silk are, of course, **animal fibers**. Plant dyes work best if the fiber is treated before dyeing, rather than during the dyeing process. Treating the fiber with a **mordant** helps the fiber achieve the brightest color possible, and this process keeps it from fading over time. Mordants are metallic compounds such as aluminum, tin, iron or copper, and they are sold in a powder-crystal form. Mordants can also determine how the dye reacts to the fiber, resulting in several colors. This activity will use alum for cellulose fibers and alum mixed with cream of tartar for wools or silks. Another way to affect the color of the fiber is to add vinegar (acidic) or ammonia (alkalize) which increases the color range. When dyeing with tea or walnut shells, the fiber does not need a mordant because the natural tannins work like one.

Before dyeing any fiber collect and store all the natural materials. Collect material that is easily accessible. The chart (see page 50) offers suggestions for a collection. Natural materials should never be collected in public parks, national forests or reserves. Never collect on private land without permission. Many materials may be stored in plastic bags and refrigerated or frozen until you have collected a large enough quantity. Other plants may be air dried and stored.

Dyeing produces a diversity of colors; rarely, will two dye baths produce the same exact color. Making a **dye bath** from natural materials is as easy as making tea; just boil the plant in water to remove the color **pigments**. The plant is usually chopped or crushed into small pieces and placed in a pot of boiling water simmered for one hour. The water is cooled and strained ready for dyeing.

Safety: Tools and equipment used for dyeing should not be used for food preparation. It is a good idea to work outdoors as some dye baths may have a strong odor.

Your Challenge

This activity is all about experimenting! Try using any of the following: marigolds, clover tops, beets, yellow onions, tea, hollyhocks, walnut shells or sunflowers. Try dyeing a variety of fibers such as wool, cotton, silk and linen fabrics, and wool and cotton yarn or cording. When dyeing, don't be afraid to experiment with the types and amount of plants, and the type of fiber—wool, silk, cotton, etc.

Create

Collecting Plants

1. Harvest the plant when it is at its peak color. If no plants are available, use materials that are available at the grocery store.
2. Collect approximately 32 cups of material, 1 pound nut shells.
3. Store materials in plastic bags and refrigerate or freeze, or air dry until ready to use.

Mordant Fiber Samples

4. Wash the fiber samples in mild dish soap in order to remove oils, dirt, and fillers (often added in the production process). Cut fabrics into 12" x 12" squares, or bundle a small skein of yarn before washing. Rinse very well. Hang to dry. *Note: Set aside several samples for dyeing, when using onions, beets and cranberries.*
5. Wet fiber in cold water for several minutes.
6. Dissolve 4 tablespoons alum + 4 teaspoons cream of tartar in boiling water. Add this to 4 gallons of soft water and bring to a simmer and reduce heat. This is enough for 1 pound of *animal fiber*. For *cellulous fiber*, mix $\frac{1}{2}$ cup alum with 4 gallons water. *Note: To make soft water add Calgon Bath to the water.*
7. While wearing rubber gloves add the fiber samples to the bath and simmer for 1 hour. Remove from heat and let it set until cooled.
8. Remove the fiber samples, gently squeeze, and roll them up in a towel in order to remove most of the water.
9. Hang to dry. *Note: When using vinegar, the fiber is soaked in the solution after dyeing called an afterdip.*

Making a Dye Bath

10. Crush, cut or mash appropriately for the kind of material that is being used. *Note: Amounts will vary depending on the plant, but plan on approximately one cup of plant parts in order to dye 1 ounce of fiber.*
11. Place plant parts in a dye pot, covering with water.
12. Heat for 1 hour in simmering water. Let stand over night.
13. Strain off the dye bath and save in plastic jug with lid.



Sketchbook Entry

Record in your sketchbook which fiber you used. Also, which one used a mordant. Record the exact amount of natural material that you used to make the dye bath. Place small samples of each fiber into your sketchbook, noting the mordant and dye bath. Consider answering the Reflect and Imagine questions in a sketchbook.

Dyeing Fiber

14. Soak the fiber samples in warm water for 30 minutes.
15. While wearing rubber gloves, pour the saved dye bath into the dye pot. Place your fiber samples in the dye pot, and push them down until they are all covered. If necessary, add more water.
16. Heat the dye bath slowly to a simmer. Time will vary depending on the plant.
17. Throughout the dyeing, push the fiber samples so that they swim freely in the dye pot. The fiber samples will appear darker when wet than they will actually appear when dry.
18. While wearing rubber gloves remove the fiber samples from the dye pot and squeeze gently.
19. Wash in warm water with mild liquid dish soap until the water runs clear. Hang to dry.

Afterdips

20. Set up a separate pot of vinegar and water for the beet, onion and cranberry dyes for an afterdip.
21. Wearing rubber gloves, add the fiber samples (from Step 19) to the vinegar mixture.
22. After the appropriate amount of time, remove and rinse. Hang to dry.

Art-i-fact

The natural red dye, carmine, comes from the female cochineal insect that lives on cactus plants. Pre-Columbian peoples of South America figured out how to use the bugs to make the dye. The simple process is still used today. The bugs are brushed off the cacti, dried in the sun, and the dye extracted from the bodies. The powder is then used to make carmine dye. Peru is a major supplier of the dye today. The dye is used in foods, drugs and cosmetics.

Simplify

Use a selection of packaged hot and cold water dyes on a variety of fibers: wool yarn, muslin, color cording, or dried grass. Record the process.

Plant/Color	Amount & Dye bath Preparation	Mordant	Fiber Dying
*Yellow onion skins— Purchase or ask your grocer to save skins <i>Yellow</i>	Bag of skins	Optional: alum	Fiber sample and onion skins may be placed in the same pot. Simmer 3 to 6 hours. <i>Afterdip</i> —Add 2 cups cider vinegar + 1 gallon water, soak 30 minutes
Red onion skins <i>Red-orange</i>	Bag of skins	Alum	Simmer 60 minutes or until desired color
*Beets—canned or fresh <i>Red</i>	2 gallons juice—Cook chopped beets until soft. Mash or press through strainer.	Optional: alum or none needed	Simmer 60 minutes or until desired color <i>Afterdip</i> —2 cups vinegar + 1 gallon cold water, soak 30 minutes
*Cranberries—fresh or frozen <i>Red</i>	8 cups—Soften cranberries by boiling. Crush berries in pan. Strain and save juice.	Optional: alum or none needed	Cranberry juice + 2 gallons water, boil for 2 hours <i>Afterdip</i> —2 cups vinegar + 1 gallon water, soak 30 minutes
Walnut shells— <i>Brown</i>	1 pound crushed	None needed	Simmer 60 minutes or until desired color
Marigolds—flowers and leaves <i>Yellow to tan</i>	4–6 plants—Fresh flower heads and leaves. Simmer in water 30 minutes	Alum	Simmer 15–30 minutes
Hollyhocks—flower petals only <i>Yellow on wool, Lavender on cotton</i>	8–12 plants—Cover petals with water, simmer 30 minutes	Alum	Simmer 1 hour Optional: Soak at room temperature for 2–3 days; or <i>Afterdip</i> —2 cups vinegar + 1 gallon water, soak 30 minutes
Sunflowers—flowers <i>Light yellow-green</i>	12 flower heads in bloom— Cover with water, boil one hour, soak overnight, strain	Alum	Simmer 2 hours, soak for 1 day
*Clover tops—fresh <i>Fuchsia</i>	Quart size bag of tops— Simmer in 2 gallons water for 1 hour, strain	None needed	Simmer 8 hours; <i>Afterdip</i> —2 cups vinegar + 1 gallon water, soak 30 minutes
Tea—loose from grocery store <i>Brown</i>	4–8 oz. loose black tea	None needed	Simmer 60 minutes or until desired color
Dandelion flowers— <i>Yellow</i>	4–8 oz. fresh flower heads	Alum	Simmer 60 minutes or until desired color
Dandelion—whole plant <i>Magenta</i>	4–8 oz. fresh whole plant	None needed	Simmer 60 minutes or until desired color
Red cabbage <i>Blue-Purple</i>	One head	Alum	Simmer 60 minutes or until desired color <i>Afterdip</i> —2 cups vinegar + 1 gallon water, soak 30 minutes

Reflect

- Which natural dye materials did you use?
- Which dyes produced the brightest colors? The lightest colors?
- How did the mordant fibers react compared to the non-mordant fibers?
- Which natural dye materials were easiest to use?
- How did you use color and type of fiber to create variety?

Art-i-fact

In 1856, a chemistry student, William Perkins, was trying to make artificial quinine. Instead he created the first artificial dye, later to be called mauve. He used aniline, a colorless, poisonous, oily liquid as a base. Aniline would later be used to make other artificial dyes, revolutionizing the world of dye making and fashion.

Imagine

1. Select one dye and produce enough to dye several yards of fabric.
2. Use the fabric to sew an outfit or make a tablecloth and napkins. If using dyed yarn, use the yarn in a weaving on the lap or inkle looms.

- What was the greatest challenge in making the dye baths?
- What was the greatest challenge in dyeing the selected fiber?
- How can you use your knowledge of natural dyes when purchasing fabric or yarn?
- In this experiment how did the amount or types of plants and the type of fiber determine how the dye took hold? How did you record your results?
- Think about a challenge in other parts of your life. What variables are involved in that challenge?
- What variables do you need to change to achieve your desired results for the challenging situation?

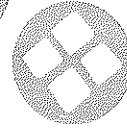
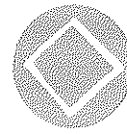
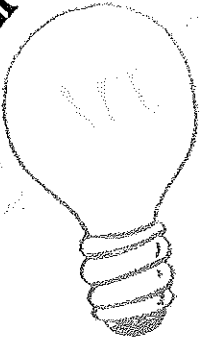
Learning Indicators

Through creation and imagination I:

- ☐ Made several dye baths.
- ☐ Dyed several types of fibers.
- ☐ Kept a record of fibers and dyes I used.
- ☐ Figured out which dye baths worked best for specific fibers.
- ☐ Applied my knowledge of dyeing in order to make an item out of dyed fabric or yarn.
- ☐ Identified process to test variables and results for other situations.

Acknowledgement: *These recipes come from *Earth Dyes (Nuunam Qaralirkai)*, *Dyes for Grass Made From Natural Materials*, Rita Pitka Blumenstein, Institute of Alaska Native Arts, 1984. Other sources of information include *A Dyer's Garden, From Plant to Pot Growing Dyes for Natural Fibers*, Rita Buchanan, Interweave Press Inc., Loveland, CO, 1995; and *Illustrated Encyclopedia of Herbs*, Claire Kowalchik and William Hyton, Editors, Rodale Press, Emmaus, PA, 1987.

Activity written by Maureen Toomey.



Symmetry in Patchwork

Life Skill:

Self-motivation

Youth Outcome:

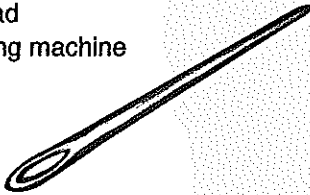
Thinks for oneself and makes necessary effort for action

National Art Education Standard:

Understanding the visual arts in relation to history and cultures

Materials:

- ☐ Colored paper
- ☐ Glue
- ☐ Scissors
- ☐ Variety of solid colored fabrics
- ☐ Thread
- ☐ Sewing machine



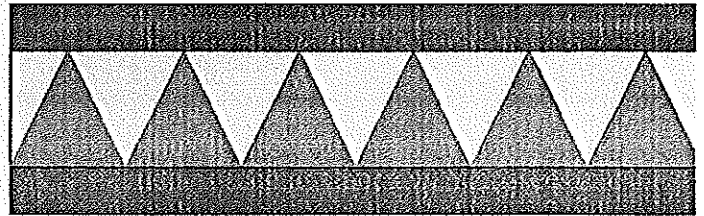
Art-i fact

When the Seminoles began using sewing machines in the early 1900's their patchwork designs flourished and became more intricate.

Over the course of forty-six years (1812-1858) the Seminole resisted the United States government enforcement of laws that pushed the Seminole out of Florida. Three wars ensued resulting in the split of various Seminole groups. Some groups fled north to Arkansas and Oklahoma (Trail of Tears) while other groups retreated further south into the Florida Everglades.

Artists, anthropologist and scientists have studied the mathematical information on the symmetry of repeated patterns. The study of crystals led to the study of symmetry in art designs. Symmetry of repeated patterns can be found in the Islamic art of Spain and the Anasazi, Mimbres and Rio Grande Pueblos of the American Southwest.

Artist Background: The Florida Seminole women have been creating patchwork designs for over a century. The original Seminoles were primarily Lower Creek, but include other Indians such as Choctaw, Yamasees and Yuchis. In the mid 1700's Upper Creeks of Alabama and a few Apalachees settled in the Tampa area. They spoke the Muskogee language while the Lower Creek group spoke the Mikasuki language. The two groups merged and by 1778 they were known as the Seminoles.



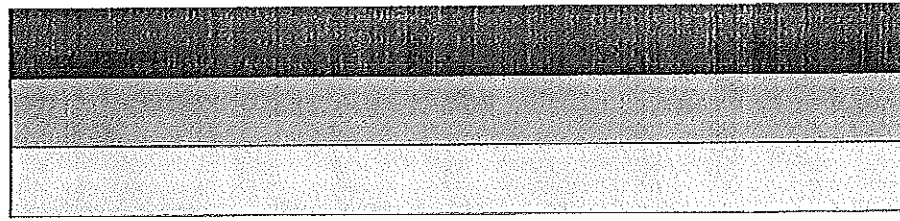
Because they had continuous interaction with European settlements, the Seminole had adopted many ways of the settlers, similar dress, lodging and sometimes religion. Slaves from the Carolinas and Georgia would escape to Florida and settle near the Seminoles. They bonded with the Seminoles and took on many of the Seminole traditions and living style. They became known as Black Seminoles. History doesn't indicate with certainty, but the patchwork tradition may have come to the Seminoles from the escaped slaves or adapted from contacts with the northern colonialists who settled in Miami.

Through trade with whites in the Miami area, Seminole women purchased cloth. The patchwork designs developed when new clothing was needed, but a trip down river to Miami was not likely. Small strips were cut from the ends remaining of the cotton rolls. The strips were hand-sewn together, then cut and rearranged, creating a patchwork. Unlike American colonial quilting designs, the Seminole patchwork was used for clothing and not quilted. Although each decade has shown variations on the design, the basic concept remains the same—symmetry in patchwork.

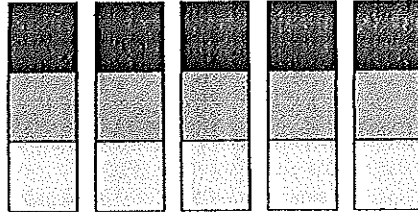
Artist Technique: Symmetry is the key to patchwork designs. Seminole designs involve sewing strips of fabric together, cutting the resulting larger strip into sections, aligning the sections to create a patchwork and adding additional single strips of fabric. Take three strips of cloth and sew them together lengthwise. Then, cut the strip apart crosswise into even widths. Shift the tricolor sections 45°, aligning each colored square with a different color. Sew the sections together. Sew on a separate strip to the top and bottom. Trim the ends and you have patchwork done in the Seminole tradition.

Your Challenge

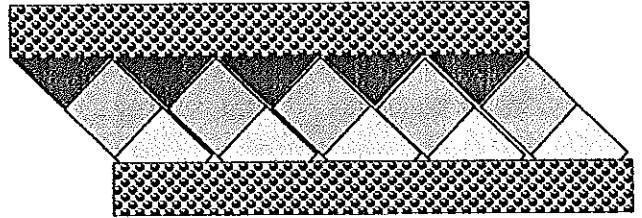
Using the Seminole system of patchwork, create a geometric pattern. The repeated design of strip patterns only occurs in one linear direction. Your squares and straight bands can be of any size and width. Make it out of colored paper or solid colored fabric. You have many options. Shift the sections up or down rather than at a 45° angle. Make sections and bands of differing widths. Pair up sections so that the color strips form a "V". Use your imaginations.



Step 1 - Sewing Strips together



Step 2 - Cut long strip into sections.



Step 3 - Rotate sections 45°. Shift, aligning with another color. Add strips to top and bottom.

Reflect

- Describe how you used color and shape to create rhythm in your patchwork design.

Doodle here ...

Imagine

- This is a challenging project and requires you to try something difficult on your own. How did you break the steps down and allocate your time to help you be successful?
- What kept you going to complete your patchwork project?
- Think about another area of your life where there is a difficult task. Describe the strategy and how you would allocate your time to approach this difficult task.



Learning Indicators

Through creation and imagination I:

- ☐ Used colored paper or fabric to create a patchwork using the Seminole style.
- ☐ Selected colors and cut shapes that when put together gave the patchwork rhythm.

Unit 3

Sculpting

Creative Containers

Clay Heads

About Faces

Connecting Boxes

Sculpting with Cardboard

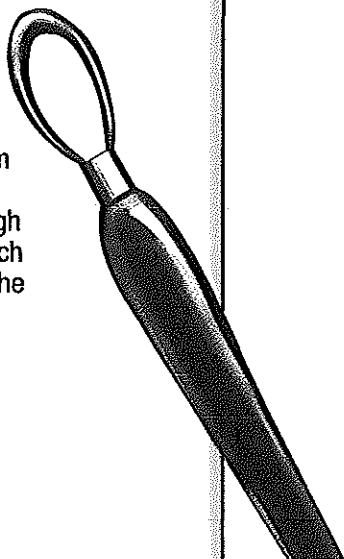
Floral Sculpting

Carving to Form

Brain Jogger – Mobile Movement

Three-dimensional expression has provided insight and inspiration in religious, social and political life. These three-dimensional expressions, sculptures, express art that is carved, caste, modeled or assembled. Sculpting media is unlimited and may include wood, metal, clay, wire, plastic, paper, etc. Imagination is the key to seeing what the sculpted possibilities are.

Sculptures are usually three-dimensional with the exception of relief sculptures. Relief sculptures rise out of a background. They may be low-relief, projecting slightly above the background or high-relief, rising half the natural depth of the subjects. Three-dimensional sculptures are free standing and can be walked around or though. Some hang from the ceiling and are viewed from below. Sculptures have real texture that stands out. Although you may not be allowed to touch the artwork, you can imagine the touch, the textural feel of the surface.



"The esthetic value of these objects cannot be arrived at by reasoning. Familiarization is necessary."

(Calder 1933)

Additive Sculpting

There are two types of sculpting: additive and subtractive. **Additive sculpting** builds the form by adding materials like clay, paper or wire. Additive sculpting may be done by modeling with clay or other pliable material, casting by pouring liquid into a form and then removing the form once the liquid hardens, constructing with any number of materials and assemblage of objects into a completed form.

There are many media to use for additive sculpting. **Wet clay** refers to a variety a clay material. Many types of clay are available from art supply stores or catalogues that will air-dry; thus, there is no need to have a kiln to fire the green ware. Wet clay works the best when moist. It needs to be stored in plastic bags or containers. A little water will soften dry clay, as long as it is not been fired.

Plasticine is oil-based clay. This soft clay is used for making models of sculptures of more durable materials. The warmth of the hands will soften plasticine and the artist's hands are the best tools. It may be purchased in different size loops and sticks from art and craft stores.

Papier-mâché is a French phrase for chewed paper. There are several methods of using papier-mâché: **Pulp** – shredding newspaper, adding water and soaking overnight; **strip** – ripping newspaper into strips and dipping the strips into paste and then placing onto an armature; and **drape** – layering newspaper and paste several layers thick, then draping the layers into a form.

Paper clay is lightweight clay that is soft and easy to mold and shape into forms. It is like using paper pulp. It air-hardens in one to three days and is non-toxic.



Polymer clay is made of fine particles of plastic combined with colored pigment and suspended in a plasticizer. It comes in a variety of vivid colors. With kneading, polymer clay becomes very pliable and easy to use. It hardens by baking in the oven at a low temperature. The heat fuses the particles of plastic together to make a permanent plastic that is stable, colorfast and long lasting.

Armatures, skeleton-like structures, are often used to support an additive sculpture. Armatures can be made of wire, foil or even paper and can be mounted onto wood or other types of bases for stability. The size of the form to be created determines the weight of the armature material. That is, a larger item would need heavier wire (like a coat hanger) to withstand adding more clay, paper or other pliable materials.

Casting is an additive sculpting technique using plaster or other pliable materials over a variety of forms. Some of these forms may include a clay or foam relief designs, designs pressed in a container of wet sand or objects arranged in a tray with sides.

Subtractive Sculpting

Carving or subtractive sculpting technique is the process of cutting away from a solid mass.

Balsam foam, Styrofoam, wax, plaster of Paris, and clay blocks may be carved with paring knives, stencil knives, large nails and sticks. Other easy to carve materials include cork, a variety of wood, paper clay and soapstone. However these materials may require the use of a paring or carving knives.

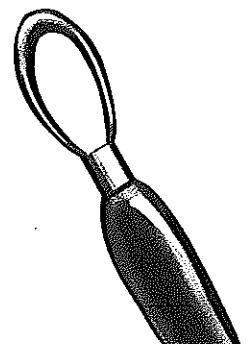
Community Connection

Large scale outdoor sculptures require the artist to consider not only the space and movement around the space, but how the environment with effect the sculpture. Catherine Widgery, a Montréal-based contemporary sculptor, uses the natural elements and blends them into her work. She uses light, wind, trees, water and the seasons to complement the sculptures. Her outdoor sculptures unify nature, culture and history. "My works often use light and wind to animate and transform the designed environment as the viewer moves through it," stated Widgery in her profile on The Center for Contemporary Canadian Art web site. Widgery's commissioned works can be seen in Manitoba, Ontario and Quebec in Canada and in Denver, Colorado; Mesa, Arizona; and Santa Fe, New Mexico.



Explore more at
www.4-hcurriculum.org
National 4-H Curriculum

Deadline here



Creative Containers

In the Studio: Create functional containers from clay.

Life Skill:

Self-motivation

Youth Outcome:

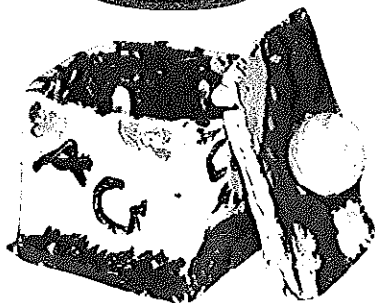
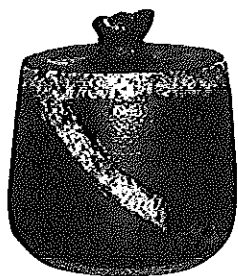
Thinks for oneself and makes necessary effort for action

National Art Education Standard:

Using knowledge of structures and functions

Materials:

- ☐ Wet clay, either requiring firing or self-hardening
- ☐ Slip, made by adding water to wet clay
- ☐ Rolling pin
- ☐ Pieces of wood, one-quarter inch thick
- ☐ Clay tools—pick, wire or fishing line
- ☐ Knife
- ☐ Paper to create a pattern—graph or plain
- ☐ Pencil
- ☐ Ruler
- ☐ Texturing items such as lace, bark, screen, optional
- ☐ Garlic press, optional
- ☐ Kiln, optional



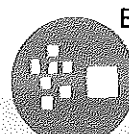
Design Element:

Form



Design Principles:

Balance and unity



Artist Notes – Creating with Clay

Working with clay requires modeling, pinching and patting to form the container you desire. It is an ancient art that flows from the Middle East and China. Whatever you intend to make clay works best when it is moist but not wet. It should be moist enough so it will not crack if a coil is bent. If clay seems too stiff, make it into a ball, poke it full of deep holes, add water and let it set overnight in a plastic bag.

All clay may be reused, except that which may be contaminated with plaster. If you have a hunk of clay that is too hard for a pencil stick into, pound it with a hammer into grape size pieces. Then place it in a sealable container, add water, stir, seal, and let it set overnight. The next day, pour off the excess water and let the muck dry out until you can knead it into workable balls. Store clay in a plastic bag or airtight container.

When first building with clay, it is called **green**. It becomes leather hard. When clay is completely dry it is called **bone dry**. **Slip** is a mixture of clay and water that acts as glue to hold clay pieces together. Some clay must be fired in a kiln to harden. Other clay may be self-hardening by air-drying.

Your Challenge

Try your hand at making something with structure and form. In this activity, you will design and create a container from wet clay. Containers can be any size and shape you want—hearts, circles, triangles, pyramids, squares, rectangles, or something more abstract. It is up to you to decide what you would like to make.

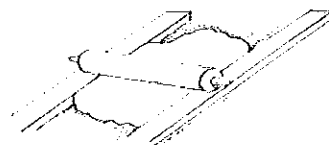
Create

Design

1. Think about what you might use a clay container for and how you want it to look.
 - What pieces are needed to construct the container?
 - What does the bottom look like?
 - What form will the sides take?
 - What will the lid look like? Will it be the same shape as the bottom or different?
2. If you are using squares or rectangles, use a ruler and graph paper to make sure that the sides are the same size and fit. Use the paper to draw and then cut out your pattern.

Preparing the Clay

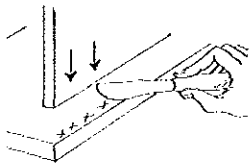
3. Knead the clay in order to remove all of the air bubbles.
4. Begin by rolling the clay flat. Place pieces of wood on either side of the clay. The pieces of wood will help you roll the clay into slabs that are uniformly one-quarter inch thick.
5. Make slip by placing a walnut size piece of clay in a container, add water as needed, and mix until it is a thick liquid consistency. Set aside for use when needed.



Constructing

6. When the slabs of clay are of equal thickness, place the paper patterns on the slab. Use a knife or pick to cut out the top and bottom of your container. Cut the sides of your container. You may find it easier to cut the sides from one long continuous piece.

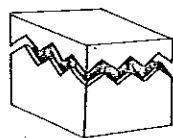
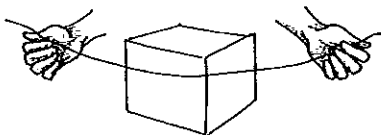
7. Use your knife to score the edges of the bottom piece of your container and the edge of the side(s) that will be attached to the bottom. Dip your fingers into the slip and cover the edges with slip. Attach the pieces and use slip to help you smooth the pieces into place.



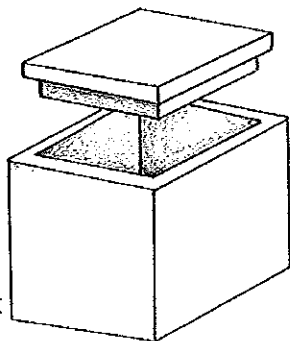
8. Crumple newspapers inside your container to help it hold its shape while it dries. Score the underside of the top, add slip, and add the top to the sides. Your container is now completely enclosed.

9. Let your container slowly dry almost to a leather hard stage.

10. Use wire or fishing line and carefully cut it open. You can cut it straight or make irregular cuts (e.g. like mountain peaks). Irregular cuts add interest, and it keeps the lid of your container from sliding.



11. If your preference is a straight cut, add a lip to the inside of the top. The lip will fit against the inside walls. This will keep the cover from sliding. Cut a long strip of narrow slab, score it, then using slip, attach it to the inside of the top so that it hangs down $\frac{1}{4}$ ". Note: At the leather hard stage, you can use coils to decorate your container, add feet, handles etc. Attach decorations by scoring box and using slip.



12. Smooth all the edges. Let your top dry so that it has some stiffness. Reposition the lid and let the entire piece finish drying as a unit. If warping occurs during drying, the lid and bottom will warp to the same shape for a good fit.



13. Fire the container according to the manufacturer's directions or air dry.

Reflect

- What were the properties of the clay (pliable, stiff, etc.)?
- How did you decide on your design?
- How will you use your container?
- How did the pieces of clay come together to create the form?
- How did the top and bottom balance each other?
- As you put pieces together, what did you learn about creating your structure?
- Did the stiffness of the clay help or hinder your construction?
- In what other ways do you express yourself?

Imagine

1. Design and build another container. Make it different from the first container.
2. Using slip, attach decorative clay pieces to the outside of the container.

- How was the second container easier to build?
- How does the container's decorative pieces help create unity?
- When you created your second container, what goals did you have to make it different from the first?
- What strategy or strategies did you use to achieve your goals?
- Think about another area of your life where you set goals. What strategies do you use to help you reach your goals?



Sketchbook Entry

Draw the design for your container. Take a picture of your finished container. Jot down notes on things you observed while constructing your container and things you want to try the next time while working with clay. Consider answering the Reflect and Imagine questions in a sketchbook.

Learning Indicators

Through creation and imagination I:

- ☐ Designed a functional container.
- ☐ Manipulated clay to form a container.
- ☐ Described how pieces of clay formed the completed container.
- ☐ Used form and balance to create a sense of unity.
- ☐ Created goals and strategies building clay containers.

Clay Heads

In the Studio: Sketch a frontal view and profile of heads and then use clay to create a bust.

Life Skill:
Positive identity

Youth Outcome:
Develops a healthy sense of self

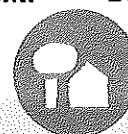
National Art Education Standard:
Using knowledge of structures and functions

Materials:

- ☐ Newspaper
- ☐ Masking tape
- ☐ Pencil
- ☐ Paper or sketchbook
- ☐ Board covered with heavy cloth, such as denim
- ☐ Staple gun
- ☐ Rolling pin
- ☐ Clay
- ☐ Paint, glaze, optional
- ☐ Bucket, plastic bag, optional

Design Element:
Form

Design Principle:
Proportion



Artist Notes – Sculpting a Bust

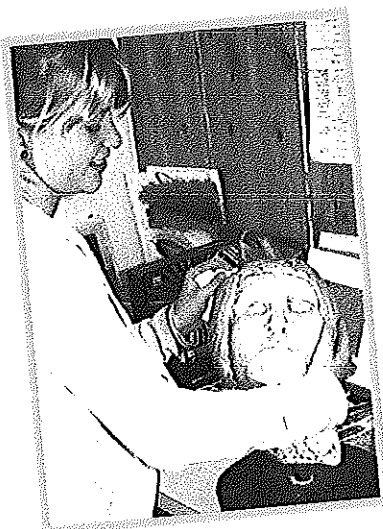
When you think of sculptured busts, you think of the ancient Greeks and Romans. Nevertheless, humankind has always expressed its image in one way or another. Sculpting did not evolve separately from other art forms, like painting on cave walls, but alongside other forms of artistic expressions. Ancient artists and artisans used many materials to fashion their likenesses. The Greeks and Romans used marble, limestone, terra cotta, bronze, gold, silver and glass, as well as such rarer substances as ivory, bone, iron, lead and amber. The **busts** show just the head and chests of a god or famous person.

An **armature** of wadded newspaper will support the clay sculpture. When working the clay, it may become dry. If cracks develop in the clay, add some water to it and work it in well. Even completely dried, clay that is not yet fired can be moistened. Put it in a watertight container, like a plastic bucket, add water and let it set. Depending on how much water you added, the clay will soak it up and become very mushy. Let it dry a bit with a cloth over it so the water evaporates slowly. When it is at the right consistency to work easily, use it or package it in plastic bags to keep it moist.

If the clay head is not finished in one session, keep it moist to work on later. Put a gallon size plastic bag over the top of the clay head. Twist the end of the bag to keep out air and tuck the end under the neck. Make sure the clay head is sitting on the neck. Letting it rest on a side or top of the head will result in a flat spot.

Your Challenge

In this activity, you will sculpt a head with facial features out of clay. Consider the type of clay you will use. Will it require firing or can it air-dry? Do you have access to a kiln? How will the sculpture be finished? Does it require a glaze that needs firing or can it be painted? What type of paint is needed?

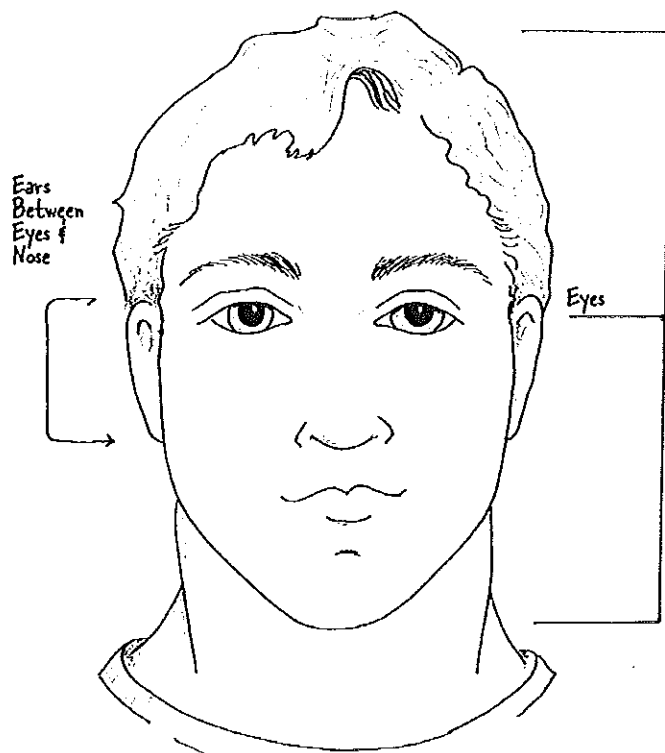


Drawing Your Face

Create

1. Try drawing your face life-size so you can compare the spacing in your drawing to the spacing on your face.
2. Lay your head onto paper. Make a mark at the top of your head and another mark at your chin.
3. Draw a head shape. It should be rounded at the top, mostly flat along the sides and chin-shaped at the bottom. Since this is a sketch, draw lightly. You may need to change lines as you go.
4. Convince yourself your eyes (and everyone else's) are halfway down the head. Look in a mirror and measure from the top of your head to your eyes. Measure from your eyes to your chin. Compare the two measurements. They should be close. Look at magazine photos and do the same comparison.
5. Put a dot at the corner of each eye. The space between your eyes is the same width as one eye.
6. Draw the eye shape. It looks pretty much like a football, pointed on each side and larger in the center. There are many different shapes of eyes. Experiment to find the ones you like to draw.

7. Draw the pupil—a round shape inside the eye shape. If you draw the entire circle, it will look like the person is surprised with their eyes wide open. You can draw just the two rounded sides of the pupil because some of the round shape is covered with the eyelids. Decide where to position the pupils. If you place both near the left side, it will look like the person is looking to the left. If you place both near the top, it will look like the person is looking up.
8. Eyebrows and eyelashes are short pieces of hair. Draw them with short lines. Limit how many eyelashes you draw and limit how long they are. Be careful not to make them too exaggerated so they will still look real.
9. Noses are quite long. They take up half the space from the eyes to the chin. The upside down seven that we all drew as a nose when we were younger, is a profile view (from the side) of a nose. Since you are drawing a face from the front, you need to draw a nose from the front. The nose starts between the eyes and can be drawn with very light lines that go almost straight down. The bottom of some noses is only slightly larger than the sides of the nose. If you choose to show nostrils, they should not be exaggerated and are usually not circles. Look for the shape and angle and remember that you are drawing them from straight ahead.



10. Mouths fit the same space as the center of one eye to the center of the other eye. So, put a dot at each corner of the mouth that is straight down from the center of an eye. Mouths are very pointed

at the corners. Start by drawing the line that is between the two lips. Curve it slightly upward at each corner. Next, draw the line above it, at the top of the top lip. Make sure it is very pointed at the two corners. Draw the line under the bottom lip. This lip can be a little wider than the top lip but should also be pointed at the corners.

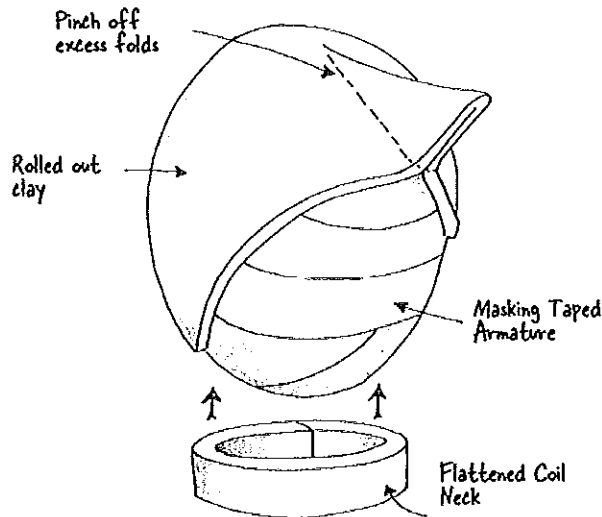
11. You may need to adjust the line of the chin. You could make it more of a pointed chin or more of a flat chin with a straight line to show the jaw.
12. The tops of the ears begin straight back from the corner of the eye. The bottom of the ear is even with the space under the nose. Make a dot at the top and bottom of the ear and draw in a flattened ear. Remember that this drawing is from the front of the head and not very much of the ear can be seen.
13. The neck is almost as wide as the head. Check this out on your own head. Hold one hand at each side of your head. Let your hands slide down to feel the thickness of your neck. You should be able to feel that your neck starts just under your ears and is only slightly thinner than your head. Start the line below the ear and draw the lines for the sides of the neck almost straight.
14. Practice drawing heads you see in magazine ads and in family portraits. Keep these practice drawings in your sketchbook.

Making the Armature

15. Select three half sheets of newspaper. The front page of your newspaper is one half-sheet. Crunch the three sheets together into a tight ball. (Use more sheets of paper if you want a larger clay head, fewer sheets of paper if you want a smaller clay head.)
16. Hold the newspaper together by wrapping masking tape completely around the newspaper ball in at least two directions. Your clay head will have newspaper for brains.

Forming the Clay

17. Cover a board with heavy cloth, stretching it tightly and stapling it down on the underside. The clay will not stick to the cloth.
18. Roll the clay into a slab on the cloth-covered board. Roll out a piece of moist clay. You can use a dowel or a rolling pin to roll the clay. Try to get it to a uniform thickness, about the thickness of your little finger. The thickness is not so critical that you need to use wood slats at the edges of the clay to maintain even thickness. Just try to get it even. You will be doing quite a bit more smoothing later and can adjust the thickness as you go.

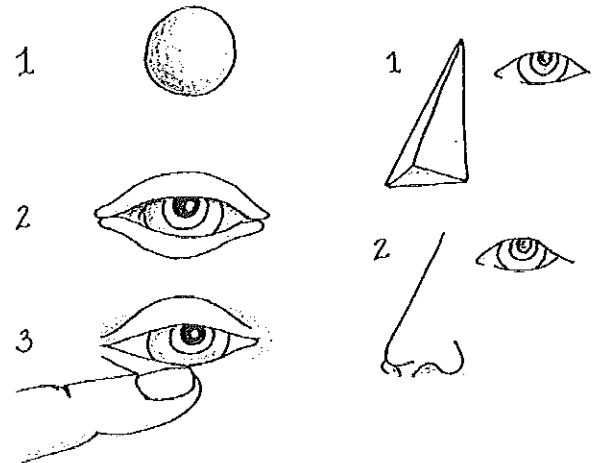


19. Position the newspaper ball armature so it is taller than it is wide—just like a head shape. Lay the slab of clay over the ball of newspaper. Gently flatten the clay against the newspaper ball. Be careful not to fold the clay over on itself so that you have multiple thicknesses. Instead, pinch the clay together in a double layer and pinch it off. Smooth over the seam that is left. Continue covering the clay head with clay, adding another slab of clay where needed, until all is covered except for a space at the bottom of the head. Leave a hole here so the newspaper can burn out when the clay head is fired.
20. Roll a large coil of clay (at least an 1" thick and about 6" long) and flatten it a bit. Position it around the hole at the bottom of the head to make the neck. Remember necks are only slightly less wide than heads. Make sure it is smoothed onto the head very well. Make sure you have used enough clay so the neck is strong enough to support the head.
21. Turn the clay head around to find the side that seems most suited for the face. Look at the space between the top of the head and the chin (you may need to shape the chin) and place your thumbs halfway down in the eye space. Work your thumbs into the clay, gently making the eye sockets.

Adding Features

22. Make two small round eyeballs. Position them in the eye sockets. Make a thin coil of clay and position it above the eyeball to be the eyelid. Smooth the top edge up onto the forehead. Make another coil of clay and position it below the eyeball. Smooth the bottom edge of it down onto the cheek. These two eyelids should hold in the eyeball, appear to be a layer thicker than the eyeball and be completely smoothed into the surrounding "skin." Repeat this for the other eye.

23. Make a somewhat triangular shape of clay for the nose. Position it between the eyes so the thinnest part is up and the wider part is down to form the bottom of the nose. Smooth it onto the forehead and onto the cheeks. Push the bottom into a rounded nose shape. Use a clay tool or pencil to press in nostrils.



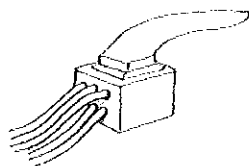
24. Check to see if you need to add clay for the chin. You may need to add and smooth a chunk of clay to form the chin. You may need to add and smooth a coil of clay to help the jaw line show up.
25. Make a coil of clay for the upper lip. Make sure it is long enough to fill the space from the center of one eye to the center of the other eye and is pointed on both ends. Position it under the nose and smooth the top edge of the lip onto the "skin."
26. Make another coil of clay for the bottom lip. If you want the mouth shut, position this coil against the upper lip coil. If you want the mouth open, draw teeth onto the clay head first and then position the lower lip so just a little of the teeth show.
27. You can make ears with a coil of clay shaped in a C. Make two the same size before you attach them. Position the clay ears so the top of the ear is straight back from the corner of the eye and the bottom of the ear is just below the nose. Smooth the clay on the inside of the ear shape. Use a pencil to press in the ear canal. Do not press so far that you make a hole in the clay.

28. Press clay through a clay extruder or through a kitchen sieve to make "hair." Attach hair completely to the head. Clay hair that sticks out from the head will tend to break off very easily.



Finishing the Bust

29. Allow the clay head to dry for 3–4 days. It takes a long time for the clay and the newspaper ball inside to dry out. It should be completely dry before firing in a kiln. You can check the dryness by touching the clay head to your cheek. If it feels cool, there is still moisture in it. If it feels the same temperature as your cheek, it is dry enough to fire.
30. Fire the clay in a kiln to the temperature appropriate for the clay you are using.
31. Choose to leave the clay its natural color after firing or add color to the clay head using watercolor paints, tempera paint, acrylic paint, under glaze colors or ceramic glazes. If you use under glaze colors or glaze, you will need to fire the clay head a second time.



Simplify

If you do not have clay available, you could do this activity with polymer clay in a smaller size. Papier mâché techniques could also be used to create a head.



Sketchbook Entry

Add your portrait drawings to your sketchbook. Photograph your clay head and add the photo to your sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Additional Resources *Drawing on the Right Side of the Brain*, Betty Edwards; *Draw Real People!*, Lee Hammond, North Light Books, 1996; *Drawing with Children*, Mona Brookes, G.P. Putnam, 1996

Reflect

- How does your drawing compare to the bust you constructed?
- Which was harder—drawing a face or constructing the facial form? Why?
- Which part of the facial proportion was difficult? Easy?
- How did you feel when creating a clay head?

Imagine

1. Create a clay head that is based on your facial features.
 2. Create several heads that fit together as a unified sculpture piece.
- How was facial proportion easier to achieve the second or third time in sculpturing?
 - Describe why you like or dislike your sculpture.
 - What emotions did you feel as you were sculpting yourself?
 - Are the emotions you felt conveyed in your sculpture?
 - Describe how the sculpture you created is similar or different from how you actually see yourself.
 - What are other things you do to help you discover who you are?



Learning Indicators

Through creation and imagination I:

- ☐ Drew a face with the eyes, nose, mouth, ears and neck in proportion to the form (head).
- ☐ Constructed a head form and added features that were realistic.
- ☐ Constructed a sculptured head that looks like me.
- ☐ Learned something new or different about me.

About Faces

In the Studio: Search, learn and apply mask-making knowledge to create a mask.

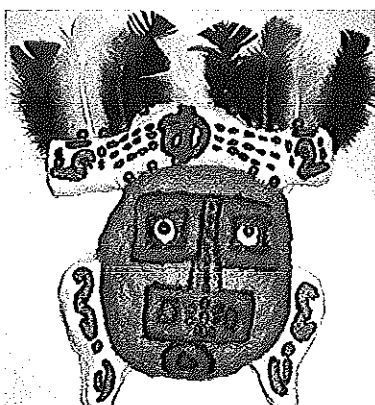
Life Skill:
Communicating

Youth Outcome:
Integrates feelings, thinking and actions into social competence

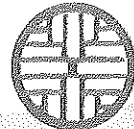
National Art Education Standard:
Understanding the visual arts in relation to history and cultures

Materials:

- ☐ Newspaper
- ☐ Masking tape
- ☐ Clay
- ☐ Rolling pin
- ☐ Clay tools
- ☐ Plastic or damp cloth
- ☐ Found objects such as rice, noodles, raffia, yarn, feathers, etc.
- ☐ Paint, optional
- ☐ Glaze, optional



Design Elements:
Form and texture



Design Principle:
Unity

Artist Notes – Mask Making

Masks are objects people have used for years to express feelings and emotions in various cultures. Masks serve many purposes. They provide protection for welders, firemen and athletes. Masks are used for plays and Halloween. Over the years, masks have been used for religious and spiritual ceremonies. Mask-making provides for expression of a wide range of emotions and feelings such as happiness, grief, fear, anger, etc. Studying masks used in everyday life and rituals helps us to learn about the culture of various people.

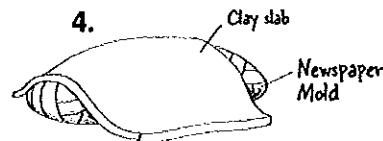
Indigenous people used masks for healing and medicine, and to honor native animals by honoring the spirits of the animals. Masks had real meaning to the creator. Some masks were made to be used repeatedly; others were burned or buried after use.

Your Challenge

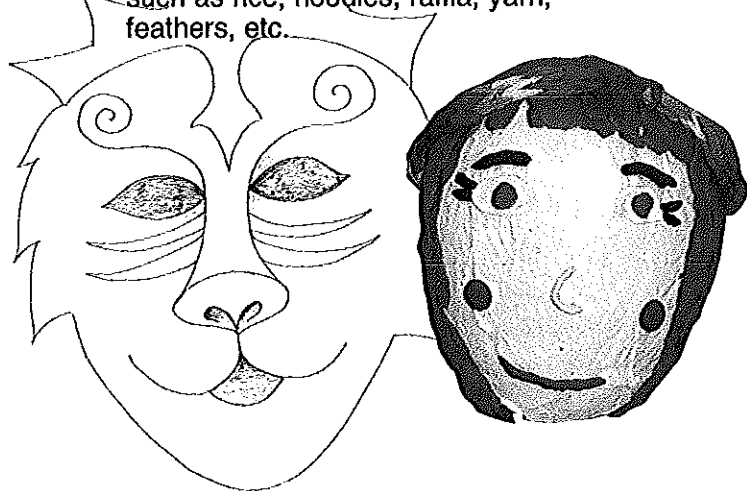
Explore resources found on the Internet and in the library, learning about why humans made masks, how they were used and when and where they were used. Design a mask emphasizing a feeling and share how the art techniques you chose helped you portray the feeling.

Create

1. Select a culture to research. When and for what purpose did they use masks?
2. Consider expression and emotions. Draw a face to express these words: anger, fear, happiness, disgust and grief. Consider the angle of the eyebrows, shape of the lips, mouth, eyebrows, frown lines and shape of the head (use exaggeration). Large eyes may be a sign of fright. Decide which emotion and expression to make into a mask and make a final drawing.
3. Mask-making is a type of relief. A relief varies in height from a surface, such as the nose and eyebrows rising from the surface of the face. Study a relief map comparing the mountains to the plains and valleys.
4. Make a hump mold of the desired shape and size of the mask using newspapers and masking tape.
5. Roll out several clay slabs approximately 1/2" thick and shape over the hump mold. Cut away any facial features as needed.
6. Lay the drawing on top of the clay and trace and cut out features. Draw details on the face using clay tools.



7. Add details such as clay coils, sieved clay for hair, etc. Be sure to use clay slip and crosshatching techniques to make separate pieces of clay stay together.
8. Dry clay slowly by applying damp cloths or wrapping in plastic.
9. Fire according to the manufacturer's directions after mask dries completely.
10. Embellish: paint, glaze, add found objects such as rice, noodles, raffia, yarn, feathers, etc.



Doodle here ...

Reflect

- What feelings and expression did you capture?
- How do shape and form create emphasis?
- How did you work all the features of the mask so they look like they fit together?
- Was distortion or exaggeration used?
- What meaning does the mask convey?

Imagine

1. Using wood, cardboard, wire, papier mâché and other materials design another mask.
- Was this media easier to use than clay? How was it different?
 - Which mask made it easier to express emotions?
 - How is your mask different from those of another culture?
 - How did the culture you studied use masks?
 - How do you use facial expressions to convey thoughts or feelings?
 - What are appropriate situations and ways to use facial expressions to convey thoughts or feelings?

Enhance

Use stiff fabrics such as felt, wool and tapestries to design a mask, fold and manipulate to make fabrics molded to fit a human face.

Art-i-fact

Native people of the northwest North America designed a ceremonial transformational mask, changing from a human face to a bird.



Sketchbook Entry

Sketch the emotions in the sketchbook. Photograph your completed mask and add the photographs to the book. Consider answering the Reflect and Imagine questions in a sketchbook.

Additional Resources: *The North American Indian*, Alfred A. Knoff Publisher, 1995

Learning Indicators

Through creation and imagination I:

- ☐ Designed a mask emphasizing unique form and textures to portray feelings.
- ☐ Learned about another culture's use of masks.
- ☐ Shared what I learned with others.
- ☐ Integrated feelings, thoughts, or actions into mask.

Connecting Boxes

In the Studio: Assemble a sculpture of boxes and found objects.

Life Skill:
Positive identity

Youth Outcome:
Develops a healthy sense of self

National Art Education Standard:
Reflecting upon and assessing the characteristics and merits of their work and the work of others

Materials:

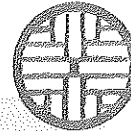
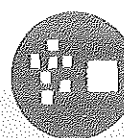
- ☐ 9–12 small cardboard boxes, purchased from a craft store
- ☐ Tacky glue
- ☐ Spray paint, any color choice
- ☐ Assortment of found objects

Design Elements:

Color and form

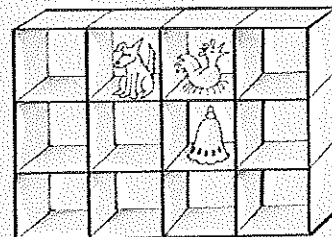
Design Principles:

Balance and unity



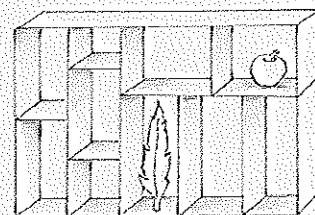
Artist Notes – Assembling a Sculpture

Sculptures come in many shapes, sizes and media. One of America's greatest abstract and expressionist sculptors, **Louise Nevelson**, (1899-1988) assembled wood and found objects into unified sculptures. Nevelson constructed wood boxes, set side-by-side and stacked upon each other. She filled the boxes with found objects. To create a sense of unity, she painted the entire sculpture black, and in later years, white or gold.



Assemblage is a style of sculpting that composes multiple parts together in order to create a whole. Nevelson often used wooden boxes and objects. Other artists used clay, fibers, recycled materials, etc.

Safety: Always use spray paint in a well-ventilated area, preferably outside. Do not inhale the spray paint fumes.



Your Challenge

You too can assemble a sculpture using the Nevelson technique. Gather found objects that have meaning and that are interconnected to create a sculpture in the Nevelson style.

Create

1. Gather found objects. Sort them according to your interests —all round objects in one pile and square in another, metal objects in one pile and glass in another, etc.
2. Layout the small boxes. Consider the arrangement 3 x 4 stacked or 2 x 6, etc.
3. Plan out which objects will go in each box. Consider how the entire sculpture will appear to be balanced.
4. Glue the boxes together. Let the structure dry.
5. Glue in the objects according to your design. Let the glue dry.
6. Spray paint the entire sculpture in one color. Spray several coats of paint letting the paint dry between coats.



Reflect

- How does your sculpture appear three-dimensional?
- How does the color pull the boxes together?
- What type of objects did you use?
- How do the objects you selected represent you or your interests?



Doodle here ...

Imagine

1. Create a second sculpture using Nevelson's technique. This time, arrange the boxes in a random fashion with perhaps three on the bottom and four on the top. You decide on the arrangement by keeping the balance of the whole in mind.
2. Add objects, which focus on one topic. For example, the objects may all deal with nature, or sports, science, art, etc.
3. Spray paint in a color that was not used in your first sculpture.
 - Was it hard to collect objects that related to one topic? Why?
 - What form did your sculpture take?
 - How is it balanced?
 - How does the color pull the parts together?
 - In the second assemblage what did you try that was new?
 - The sculpture created expresses something about you. What are other things you do that help you learn more about yourself?

Art-i-fact

Louise Nevelson was born in Kiev, Russia and journeyed to the United States as a young child. She studied at Art Students League, New York, and in Munich.

Learning Indicators

Through creation and imagination I:

- ☐ Assembled a sculpture.
- ☐ Arranged the parts to equal a whole.
- ☐ Used color to create a sense of unity.
- ☐ Created a sculpture that reflects me.



Sketchbook Entry

List in your sketchbook the objects used in your sculptures. Make notes on what the objects meant to you. Photograph your sculptures and add the photos to the sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

Sculpting with Cardboard

In the Studio: Create a piece of textured artwork by gluing pieces of cardboard together and sculpt with an Exacto® knife.

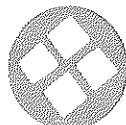
Life Skill:
Communicating

Youth Outcome:
Integrates feelings, thinking and actions into social competence

National Art Education Standard:
Using knowledge structures and functions

Materials:

- ☐ Cardboard (4 to 5 sheets) any size
- ☐ White glue
- ☐ Exacto® knife
- ☐ Spray paint
- ☐ Acrylic paint
- ☐ Felt pen
- ☐ Paint brush (size depends on the design)
- ☐ Hanging tab
- ☐ Frame (optional)
- ☐ Wooden base, 5" square

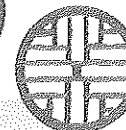
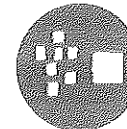


Design Elements:

Color, form, line, shape and texture

Design Principles:

Balance and unity



Artist Notes – Creating a Relief Sculpture

Relief sculptures stand out from the background protruding into the surrounding space. Artists use many media to sculpt. In this activity, corrugated cardboard is used to create a relief sculpture. Corrugated cardboard is constructed in several layers. The center ripple is called **fluting**. It is placed between two smooth layers called **liners**. Although there are many types of corrugated cardboards, the most common is composed of these layers. Any size sheets of corrugated cardboard may be used. The sheets are glued together with fluting running at differing angles. **Exacto® knives** are used to cut the layers of corrugated cardboard. When the liners are cut away at each layer, the fluting is exposed creating rich lines, shapes, and textures. The relief sculpture's **composition** needs to be organized and arranged using the elements of design in order to create a balanced and uniform artwork. The sculpture will be **three-dimensional** (3-D) having length, width, and depth.

Safety: When using Exacto® knives (they are extremely sharp), keep fingers out of cutting lines. Work slowly when cutting. Never point a knife at others and place a cap or protective shield on the knife when not in use. When **spray painting** the relief sculpture work in a well-ventilated area or outside to prevent breathing the fumes.

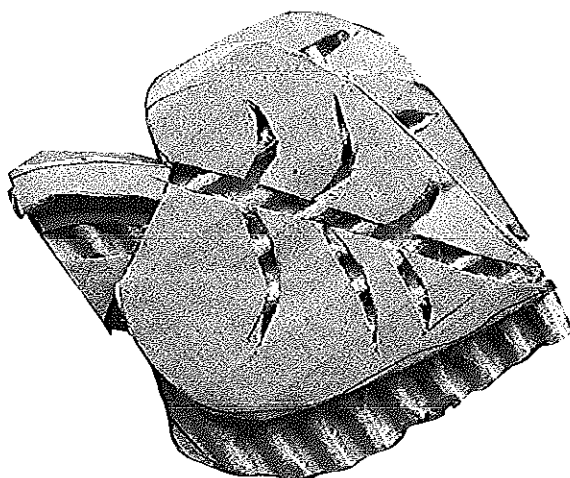
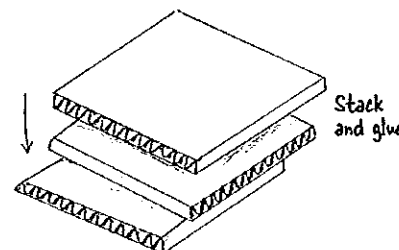
Your Challenge

Decide on the composition for your cardboard relief sculpture. Make a sketch of the composition. Decide what part of the cardboard is to be cut away to show depth of the fluting between the liner sheets.

1. Cut 4 to 5 corrugated cardboard sheets of the same size from packing boxes.
2. Glue the sheets together with white glue, arranging the fluting in different directions (horizontal, vertical, 45° angle left and right). Let the stack dry overnight.

Create

3. Trace or draw the design on the cardboard stack with a felt pen.
4. Cut away through the first liner layer, based on the design. Then cut into the fluting and remove it as needed. Continue cutting the liner and the fluting to achieve the design.
5. Work slowly and carefully.



6. When the design is finished, spray paint with a background color, working in a well-ventilated area. When work is dried, decide what acrylic colors will be painted on the design. Try



shading in order to create more depth in the composition. The design at this point is up to the artist. Have fun and paint. Note: Due to the texture of the design, the finished artwork will need some protective covering, such as glass or Plexiglas.

Reflect

- What shapes did you use?
- How are lines expressed in the relief sculpture?
- How many layers are used to create forms?
- How does the exposed fluting add to the textural look of the sculpture?
- When painting, what types of color and process did you use?
- What effect did color create within your sculpted 3-D design?
- Describe the balance in the sculpture.



Sketchbook Entry

Place the sketch of the sculpture in your sketchbook. Place the photographs of your sculpture in your sketchbook. Consider answering the Reflect and Imagine questions in a sketchbook.

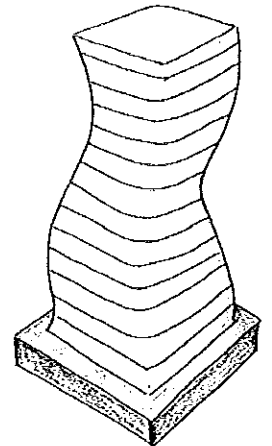
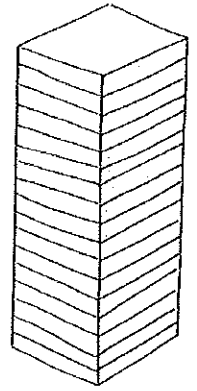
Art-i-fact

Corrugated cardboard was first produced in 1871. It was composed of just the fluting. In 1874, the two liner sheets were added. It was first used to pack and ship kerosene lamp chimneys.

Today, corrugated cardboard is made from recycled post-consumer material, with 74% of corrugated boxes being recycled and used in making new boxes. The production process uses no heavy metals or ozone-depleting substances, which is great for the environment.

Imagine

1. Stack and glue 10–12 pieces of corrugated cardboard pieces 4" square.
2. Plan your composition and decide which layers will be cut away.
3. Using an Exacto® knife, create a freestanding sculpture.
4. Paint according to your composition.
5. Attach it to a wooden base.



- What did you learn about sculpting with an Exacto® knife and the safety issues used?
- How is a 3-D design different from any other design?
- What was the hardest part of the project? The easiest?
- Which of your sculpture created the greater impression on the viewer? Why do you think so?
- What feelings, thoughts or actions are conveyed in your relief sculpture?
- What are other ways you project or express something about you without using words?
- Are you projecting the qualities you want others to see?



Explore more at

www.4-hcurriculum.org

National 4-H Curriculum

Learning Indicators

Through creation and imagination I:

- ☐ Designed a composition using color, form, line, shape and texture.
- ☐ Recycled cardboard and used it to sculpt a 3-D design with an Exacto® knife.
- ☐ Created balance and unity within the composition.
- ☐ Created an artistic expression that communicates an idea to others

Floral Sculpting

In the Studio: Use wire and nylon cloth to create a sculpture.

Life Skill:
Problem solving

Youth Outcome:
Integrates feelings, thinking and actions into social competence

National Art Education Standard:
Using knowledge of structures, and functions

Materials:

- ☐ Wire, 6–14 gauge
- ☐ Block of wood, 2" x 6" x 6"
- ☐ Several pantyhose, nylon hose, or knee-high hose
- ☐ Wire cutters
- ☐ Pliers
- ☐ Nail & hammer or a drill
- ☐ Wire bending jig, optional
- ☐ Beads, assorted size to string on wire
- ☐ Scissors
- ☐ Gesso
- ☐ Latex, or acrylic can be used to paint the finished sculpture
- ☐ Hot glue gun
- ☐ Paint brushes (small to large, depending on size of sculpture)
- ☐ Wooden dowel, optional
- ☐ Spray paint, optional
- ☐ Cardboard box, optional

Design Elements:

Color, form, line and texture

Design Principles:

Balance and unity

Artist Notes – Creating a Wire Sculpture

Alexander Calder (1898–1976) described his wire sculptures as “Three-dimensional line drawings.” Wire allows the artist to create forms from a single continuous line or from entangled lines flowing over and under each other. Calder began sculpting as a child. He figured out how to make his sculptures move with wheels and hinges. Throughout his career, he tried various methods to add movement to his work. His friend Marcel Duchamp liked one of Calder’s motor-driven sculptures, and said that it should be described as a “mobile”, a French pun meaning motion and motive. Thus, the art term **mobile** was established.

Georgia O’Keeffe (1887–1986) painted many flowers. In 1924, she began painting in a magnified style. The magnified perspective emphasized parts of the flower; yet, it made the flower seem whole. O’Keeffe also used vivid colors that flowed across the canvas. By the end of her life, she had painted over 200 flowers.

A sculpture that is viewed from all sides is called **sculpture in the round** or **freestanding**. Wire sculptures are freestanding but need support. That support is called an **armature**. The armature is attached to a base. The wire creates the form for the sculpture, enhanced by a nylon covering. A variety of wire may be used. Wire is measured in **gauge size**. The larger the gauge’s number the smaller the diameter of the wire. Visit a hardware store and see the variety of wire that is available. A **wire-bending jig** may be helpful to shape the wire. They are often made out of die-cast aluminum with steel bending pins. Note: Although readily available, wire hangers may be difficult to bend to achieve the desired shape.

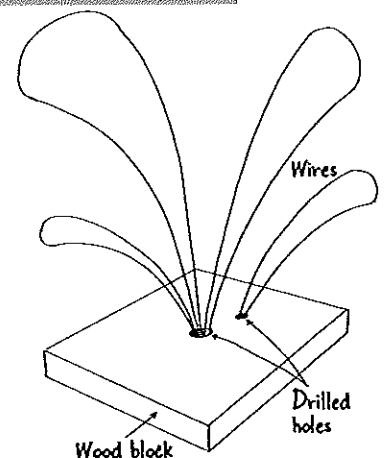
Your Challenge

Create a freestanding sculpture by using wire for lines like Calder, and using flower colors and shapes like O’Keeffe. The design is up to you. Plan your design. Do a sketch of a flower including the number of petals, leaves, stem, etc.



Create

1. Use a hammer and a small nail (the same diameter as the wire) or use a drill. Make holes in the wood base into which each wire will fit. The number of holes will depend on the design.
2. Shape the wire using pliers based on your design sketch. Cut off excess wire.



3. Place the ends of each wire into the holes of the wood base. Use a hot glue gun to reinforce the wire pieces in the holes. Make sure that the wire does not come through the wood making the armature unstable.

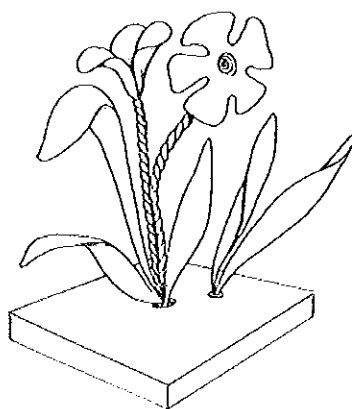
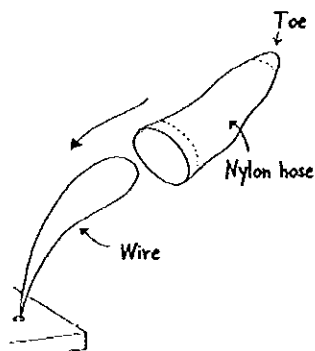
4. Using pliers, adjust the wires in order to maintain the flower shapes of your design.

5. Carefully place the nylon hose with the seam at the toe aligned with the wire form over each shape.

6. After the shape has been decided, and the tightness of the nylon is complete, take the scissors and cut off the excess hose near the bottom of the wooden base. Use the hot glue gun to tack in place.

7. Using the gesso paint, coat the sculpture and let it dry. When dry, use the acrylic or latex paint to color and bring the flower to life. Experiment with color and design. Different types of paint may make the form appear to be gold, metal, wood, stone etc. Use your imagination.

8. Add beads, feathers, etc. for texture.



Reflect

- Describe your sculpture. Is it different from your sketch?
- What forms evolved from shaping the wire?
- What did you do to create texture?
- Describe the balance in each piece.
- How is unity expressed in the sculpture?

Imagine

1. Design a freestanding wire sculpture. Sketch your design.
2. Make two holes in a wooden base for the wire.
3. Insert a heavy gauge wire into the holes forming an armature.
4. Use a lighter weight (higher gauge number) wire and create the sculpture. Bend and fold the wire to create the contours of your design. Attach wire as needed.
5. Add beads as you work.
 - What techniques did you use that were similar and different from your flower sculpture?
 - Think about your floral and free standing sculpture, what techniques worked best to achieve your design.
 - What else could you use to create your freestanding sculpture?
 - What are other areas in your life that thinking about alternatives and evaluating the results would work to successfully tackle the challenge?

Simplify

Rather than using a wooden base use a wooden dowel and attach the sculpture to the dowel with colored duct tape. Spray sculpture with spray paint. Use a spray box (cardboard) when spraying the sculpture.



Art-i-fact

In 1919, Alexander Calder received a degree in mechanical engineering from the Stevens Institute of Technology in New Jersey.



Sketchbook Entry

Add your sketch of the sculptures to your sketchbook. Write a description of the sculpture as it would appear in an art exhibition. Consider answering the Reflect and Imagine questions in a sketchbook.

Learning Indicators

Through creation and imagination I:

- ☐ Designed a wire sculpture.
- ☐ Manipulated the wire to form a flower.
- ☐ Constructed a free standing wire sculpture.
- ☐ Demonstrated balance and unity.
- ☐ Developed and evaluated alternative solutions to a challenge.

Carving to Form

In the Studio: Plan out a design and then carve a form from Plaster of Paris.

Life Skill:

Problem solving

Youth Outcome:

Uses cognitive abilities and processes to find solutions

National Art Education Standard:

Understanding and applying media, techniques, and processes; Using knowledge of structure and function

Materials:

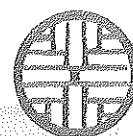
- ☐ Plaster of Paris
- ☐ Vermiculite, fine texture
- ☐ Water
- ☐ Mixing container
- ☐ Wooden spoon
- ☐ Measuring cup
- ☐ Individual containers such as 1/2 pint milk cartons or Styrofoam cups
- ☐ Plastic knives
- ☐ Fine grit sandpaper
- ☐ Spray acrylic sealer
- ☐ Plastic bag
- ☐ Shallow box or photocopy paper box lid

Design Elements:

Form and texture

Design Principles:

Movement and unity



Artist Notes – Carving

Carving is a **subtractive** process, taking away from the block by removing material; thus, giving **form** to the block. One challenge to carving is creating in a three-dimensional format. It is difficult to create an artwork that shows all sides, front back, left and right; to have all the sides flow into each other creating a seamless unified work. Another challenge is to look at a block and see the possibilities; to see the form lying within and removing material in a precise way to expose the form.

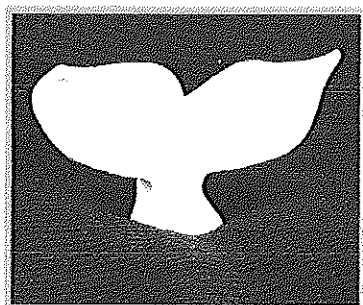
Carvings begin with a block of material. The artist visualizes the form. At this point, the artist can begin chiseling away on the block or carefully plan out the final sculpture on paper. Planning by drawing the sculpture from each side is a wise step for beginners. When drafting the drawings consider the form, the space around the form, the planes and curves, the reflection of light and creation of shadows. Carving the form, to create interesting space around and through the sculpture, adds to the unity of the piece. The form surface may have curves that are **concave** (bowl) or **convex** (dome). Alternatively, it may have flat planes. **Planes** may intersect and change at any degree creating interest, reflecting light or casting shadows.

Many materials may be used for carving. This activity uses plaster of Paris but other carving materials include a variety of woods and stones. Each material has unique qualities of color, line and texture that enhance the overall appearance of the finished sculpture. Consider the qualities of the material when planning the carving. It helps to have a clear concept of the final artwork and then pick the best material for the creation of the carving. Visualizing the form is difficult when looking at a lump of material, but with practice, the artist begins seeing the artwork in each block of material.

Common tools used for carving are the rasp, saw, file, chisel, gouge and mallet. It really depends on the type of material you are using for the carving and the size of the piece. For this activity a plastic knife will work.

Your Challenge

Using a plaster of Paris block, carve a form that has a concave and convex surface and allows space to flow around and through it.



Preparing the Block

Create

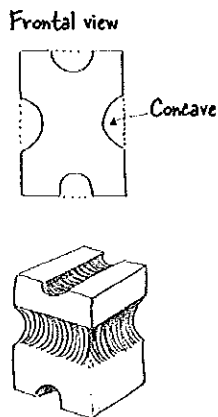
1. Prepare the plaster of Paris according to manufacturer's directions. A common ratio is: 2 parts plaster + 2 parts and a little more of water + 3 parts fine vermiculite.
2. Immediately pour into individual milk cartons or Styrofoam cups. Tap containers gently on the table to lift any air bubbles to the top.
3. Set containers aside to harden overnight. Note: Cover with a plastic bag to keep the plaster workable.
4. When hardened, remove the plaster block from the container. The block is soft enough to carve, but does not crumble when worked. When not working on the block, keep it covered.

Designing the Form

5. Begin sketching the carving form. The form must have a concave and convex surface and allow space to flow around and through the carving. It can represent an object or be abstract.

6. Sketch the block and then the form within, from each perspective, all sides and a top view. Show what part of the block you will be removing. Consider the details of the form to be carved.

7. Using the sketches, draw on the block's four sides and top (or around the cylinder) indicating where the form will be carved, as your sketches show what parts will be removed and what to keep. These are rough marks made on the block, nothing too precise.



Reflect

- How does form, space and texture work together to create unity in the artwork?
- How did you use concave, convex and/or planes to create the form of your sculpture?
- How does space flow around and/or through your form?

Imagine

1. Using the same process as above, carve from either a cylindrical block or an organic block letting the form determine the content. Visualize and work to create the main outline form. Do several sketches of the form within the block.

- What other material could you carve now that you have worked with plaster of Paris?
- What challenges did you have as you created your sculptures?
- Describe the process or steps you used to successfully meet the challenge.
- Think about other parts of your life where you face challenges. How would the process or steps you identified while carving help you face challenges in this other situation?

Carving

- Place the block in a shallow box. The box will catch all the plaster as the block is carved.
- Using a plastic knife, cut off the corners changing the block from a cube (or cylinder) in order to outline the form. Determine depth at the deepest section. Holes come last only when necessary.
- Work slowly removing only as needed, from each side for the form to emerge. Don't work from just one side. This may throw the form out of proportion.
- Smooth the form using fine grit sandpaper. Add texture as needed.
- Let the carving completely dry.
- Spray the carving with an acrylic sealer.

Enhance

Try carving a block without sketching out the form. Visualize the form in the block and begin carving.



Sketchbook Entry

Keep the sketches in your sketchbook. Consider sketching out a third carving. Consider answering the Reflect and Imagine questions in a sketchbook.

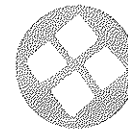
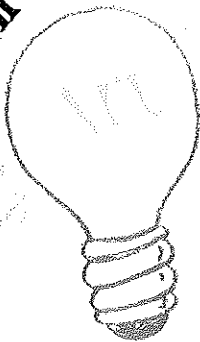
Art-i-fact

Plaster of Paris is really gypsum (calcium sulfate) that has been roasted causing three-fourths of the water to evaporate. When it is mixed with water again and dries, it becomes solid and no longer reacts to water. The smooth texture makes it a good medium for beginning carving.

Learning Indicators

Through creation and imagination I:

- ☐ Prepared plaster of Paris blocks and cylinders.
- ☐ Sketched out a form and transferred the sketch to the block.
- ☐ Completed two carvings.
- ☐ Developed and evaluated alternative solutions to a challenge.



Mobile Movement

Life Skill:

Positive identity

Youth Outcome:

Develops a healthy sense of self

National Art Education Standard:

Reflecting upon and assessing the characteristics and merits of their work and the work of others

Materials:

- ☐ Wire, gauge 14-17
- ☐ Plastic from bottles or food containers
- ☐ Pulleys
- ☐ Pliers
- ☐ Needle nose pliers
- ☐ Wire cutter
- ☐ Spray paint, white, black and red
- ☐ Cardboard spray box
- ☐ Heavy duty paper punch, optional

Artist Background: Kinetic art (Greek) is art with movement. **Alexander Calder** (1898-1976) created art that moved in the form of a **mobile**. A mobile is an object that changes according to the air currents surrounding it. It is hung from the ceiling and viewed from below. The chance motion allows the viewer to see the lines and shapes differently with each wisp of air. Calder's artworks captured lines and shapes in random motion, while maintaining a center of gravity. The mobiles are always balanced and stable allowing them to hang from one point. Calder used different colors, usually white, black and red because he was interested in the disparity in the world, and he demonstrated it in his mobiles with colors. The black was a strong contrast to the white and the red added a splash of interest. He occasionally used yellow and later blue in his mobiles.

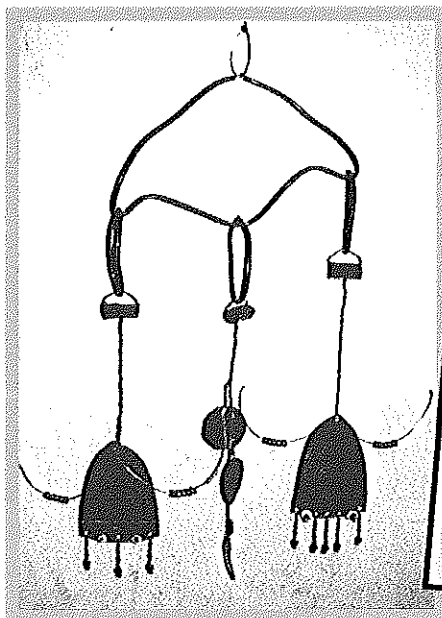
In a 1971 interview, Calder said that he had "always made objects of some sort". He started using wire when he was a teen living in San Francisco. When the cable car wires were replaced, he would collect the small pieces of copper wire from splicings that fell to the street, and then he would use them for his creations. In speaking about the mobile colors, Calder said, "I like black and white, that's one thing, and then, black and white and red, red's very...it's the only color that really counts somehow."

Artist Technique: "But wire, or something to twist, or tear, or bend, is an easier medium for me to think in. I started with a few simple forms." (Calder 1937)

Calder's mobile consisted of lines of wire and shapes of plastic. The wire was twisted, bent and attached to a shape or another piece of wire. Whatever the design, the mobile maintained the ability to move freely, usually in circular arcs or circles. The densities of the materials Calder used varied; therefore, he was always experimenting with line and shape to achieve the right type of balance.

The mobile and free standing wire sculptures often used a nucleus shape to ground the artwork, although the shape was not necessarily round or in the middle. It was the start of the mobile. Calder also used angles in his mobile from which the wires extended and floated freely. The angle may or may not be anchored with a shape.

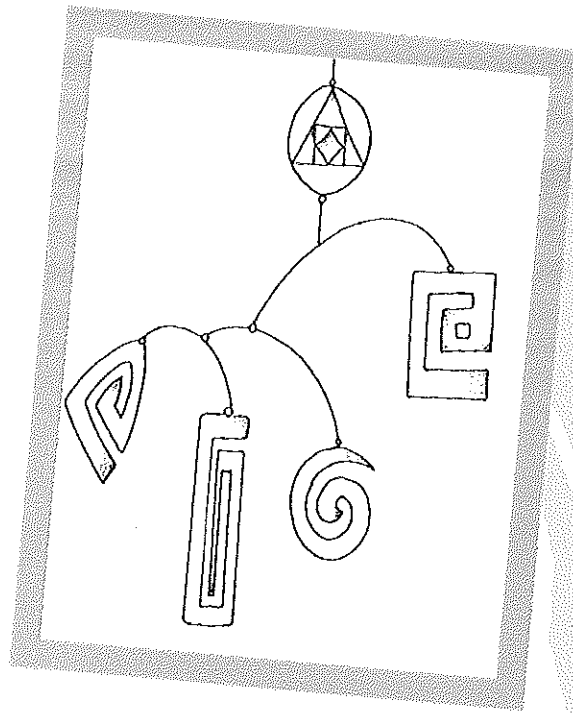
In achieving balance, Calder had only been concerned with enhancing the qualities of the line and shape. He never thought of symmetrical balance. That was undesirable, unless it helped to achieve the overall scheme of the artwork. Many of his works are asymmetrical, yet very balanced.



Your Challenge

View Calder's works on the Internet or in art books. Use your ingenuity to create a mobile with wire and plastic. The mobile should have asymmetrical balance, hang from one point, and float freely without collapsing to one side. Do not use the basic hanger with objects dangling from it. Add color to the mobile, mainly white and black with an accent of red.

Consider how the wire will attach to the plastic shapes. A paper punch may work to punch a hole through the plastic. Consider the weight of the wire and its ability to hold its line while supporting a shape.



Art-i-fact

Alexander Calder invented the **stabile**. Calder created large sculptures of steel and wire that could be walked around and under by the viewer, allowing for many vantage points. Rather than the sculpture moving as in a mobile, with the stabile, the viewer moves around the piece.

Reflect

- Describe how you use color, line and shape to create movement in your mobile?

Imagine

- Did you try something new as you made your mobile?
- Think about all the activities you did in sculpting; what did you learn about you as you completed the activities?

Doodle here...

Learning Indicators

Through creation and imagination I:

- ☐ Used wire and plastic to create a balanced mobile.
- ☐ Studied and replicated Calder's style or mobiles.



Explore more at

www.4-hcurriculum.org

National 4-H Curriculum

Acknowledgements: Smithsonian Archive of American Art, Oral History Interview with Alexander Calder at Perls Gallery, October 26, 1971, Interviewer: Paul Cummings, <http://artarchives.si.edu/oralhist/calder71.htm>

Statement by Alexander Calder From *Modern Painting and Sculpture*, Berkshire Museum, Pittsfield, Massachusetts. Exhibition held 12-25 August 1933 (extended to 27 August).

"Mobiles" by Alexander Calder, From *The Painter's Object*, edited by Myfanwy Evans, Gerold Howe, London, 1937.

Activity written by Maureen Toomey.



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