**TIME FOR ART**

Art Projects and Lessons for Students with Visual Impairments

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American Printing House for the Blind, Inc.

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Image description: a woven mat made of smooth orange foam and beige tactile phone, a multi-colored pipe cleaners sculpture, a claim pinch pot, and three playing fossil impressions

**About the Author**

Gail Showalter was an art teacher before she became a teacher of visually impaired students. She has nineteen years of teaching experience in Texas public schools, where she taught English, speech, and art. Gail currently works as a private consultant, speaker, and writer through her own business, Seeing U Through. She speaks at conferences around the country promoting the use of art with blind and visually impaired students. Her greatest thrill is to share with students as they create and experience the joy of art.

Gail Showalter received her bachelor of science degree in speech, with a minor in art, from Lamar University in Beaumont, Texas. She earned her master of arts degree in education from the University of Texas at Austin. She is a member of the Association for Education and Rehabilitation of the Blind and Visually Impaired. Gail serves as Vice President of the Board of Directors for the Richard L. Shorkey Education and Rehabilitation Center of Southeast Texas.

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**About Time for Art**

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**Preface**

While teaching art, I learned the value of the process for the student. I assigned many types of artwork and media to students with widely varying capabilities, and there was a wide range of results. Regardless of the outcome of the art project, students were challenged to express themselves. The benefits of the experiences outweighed the value of the results.

I remain convinced that art is beneficial to all students, but especially to those with visual impairments. I urge all teachers to take “time for art.”

For learning to occur, two things must exist: opportunity and motivation. Although it may seem obvious, it is not often considered that a student must have the opportunity to have a learning experience. The atmosphere surrounding an activity can hinder the opportunity to learn. Opportunity must be matched with motivation. Teachers encourage and provide an environment that they hope will motivate the student.

When young artists are given the opportunity and are motivated, they are given the freedom of expression.

**Art Expression**

Claude Monet, the great French impressionist, painted even when his eyesight failed him at the end of his life. Beethoven continued to compose even after losing his hearing. Art, for them, was expression. Art also can be expression for students who have visual impairments. Too frequently, it is assumed that since the visually impaired artist cannot view the completed work, he cannot gain pleasure from creating it. Artists know there is much more to art and creativity than viewing the outcome. Art is a process and should not be considered simply in terms of a finished product. It is during the process that the artist learns and is enriched. It is intriguing to experience what happens when students with visual impairments are allowed to be creative. Their enthusiasm for handling and producing something new and different is contagious and fun.

Students with visual impairments seldom are aware of, or involved in, the construction of anything, so the basic steps in construction usually are not familiar to them. While sighted children may regularly pass by a building under construction and see the step-by-step development, this is lost to visually impaired students. To them, there is no substitute for the hands-on experience of forming a creative piece.

Many of the hidden benefits to the creative experience are serendipitous and unpredictable. Creative art projects provide benefits to the students that may seldom come to them from any other school activities. When students with visual impairments are actively involved, they establish credibility with their peers, and social interaction is increased.

It is the purpose of this handbook to offer suggestions for endeavors with art for visually impaired students. The art projects may be used independently or combined with the companion lessons. The enrichment activities provide ideas for more advanced students who show special interest in the topic.

I hope you will discover some of art’s hidden treasures as you teach this special population of students.

**To Teachers**

Special Education Teachers

Although you are trained to teach students with special needs, it is possible that you have never had a visually impaired student in your classroom. The activities in this handbook can be used with your other special-needs students or with the entire class, and all will benefit from them.

Art Teachers

As a trained art teacher, you already know the importance of the process of creating. When working with students who have visual impairments, a few adaptations are necessary. Many drawing assignments can be converted to sculpting. Students with low vision may be able to complete drawing assignments with a few modifications and possibly some magnifying devices. The joy of observing the students’ concentration and thrill will be worth the extra time this may require.

You may have some concern about grading the student. I suggest that you observe the student and her work until you have an idea of her capabilities. Then have a one-on-one discussion with her regarding what you will be expecting in the future. Allow the student to interact with you. Be sure the student is aware of what modifications will be allowed. Once your standards are agreed upon and clearly understood, hold to them.

Evaluation

Unless the student is taking an art class for credit, no grading should take place. Art is a freedom of expression that should be carefully protected. While you may choose to evaluate the student’s effort, the finished product should not be scrutinized or compared to other students’ work.

**Understanding the Artist with Visual Impairments**

Some visually impaired students are totally blind and others have low vision. A person who was born blind has congenital blindness. People who lost their vision later have adventitious blindness. Always consider the degree of vision that the student has before selecting an art project. Materials and the arrangement of the materials should be planned in advance. Keep in mind that all learners are not the same. Like sighted students, students with visual impairments have individual learning styles.

The beginning visually impaired artist is not likely to be organized in the handling of the art materials, which can be a lesson in and of itself. Encourage the student to keep the supplies organized and in the proper location. This also will teach organizational work habits, which are essential daily living skills. Work-Play trays from the American Printing House for the Blind are helpful for keeping the materials sorted and organized.

Unless visually impaired students have had previous art experience, they may not know where to begin with a creative project until they are presented with an example. Be aware that an example likely will tempt them to reproduce it to some degree rather than produce something that is truly original – thus limiting their own imagination. If time and encouragement do not give them the motivation they need, however, an example can be used.

There are unlimited art possibilities for students who have visual impairments. Clay should not be the only option considered. This handbook serves as a catalyst for creative ideas and guidelines. Your own imagination and your knowledge of the student will keep you going!

**An Invitation to Art**

Why?

Which?

When?

Do’s and Don’ts

**Why Teach Art?**

Evidence

Art is seldom a priority in education. In our attempts to achieve essential elements and raise the scores on standardized tests, we lose sight of the importance of art. Educator and author Benjamin Bloom writes,

We tend to regard the arts as special frills or luxuries to be encouraged when the schools have extra funds, but to be put aside when the funds are needed for other areas of the schools. Even when we find a place for the arts in the schools, the amount of time and emphasis given is only a fraction of that devoted to the ‘more important’ parts of the curriculum (Bloom 1981).

The evidence is in, however, and art is the winner. The Association for the Advancement of Arts in Education in Ohio commissioned a review of research studies that showed art provides real benefits to students. The association found that 350 universities and independent researchers, 2 million students, 35,000 teachers, tens of thousands of artists, hundreds of U.S. cities and twenty international business leaders expressed the belief that “the arts are a necessary part of an education that will help our children become successful adults.” Conducted by Kent Seidel, Ph.D., this review of hundreds of research studies “provides compelling evidence that we must include the arts in the education of all students.” The four components for success presented in this review are

* Basic abilities. In early grades, the arts help develop basic mental and physical capacities that allow students to learn and live better.
* Ways and means. Participation with the arts helps students develop methods and habits of mind that help them succeed in many areas.
* Knowledge and skills. The arts themselves are important to understand -- they surround us every day -- and when connected with other subjects, they can make learning easier and more meaningful.
* Working and connecting. The arts teach students ways to connect and communicate with others in our society, critical skills in our interconnected world (Ashton 1996).

According to Dee Dickinson, chief executive officer of New Horizons for Learning, an on-line resource for education change, the arts are important for many reasons, including the following that are especially relevant to visually impaired students:

* They provide opportunities for self-expression, bringing the inner world into the outer world of concrete reality.
* They are an opportunity to experience processes from beginning to end.
* They develop both independence and collaboration.
* They merge the learning of process and content.
* They exercise and develop higher-order thinking skills, including analysis, synthesis, evaluation, and “problem-finding.”
* They provide the means for every student to learn (Dickinson 1996).

Many people do not associate the arts with “thinking.” We are aware of the art product – the song, the picture, the play – but we are less aware of the process that creates the product. Yet the arts are not so much a result of inspiration and innate talent as they are reflections of a person’s capacities for creative thinking and imagining, problem-solving, critical judgment, and a host of other mental processes. The arts represent forms of cognition every bit as potent as the verbal, logical, and mathematical forms of cognition that have been the traditional focus of public education (Oddleifson 1991).

Universal Design for Learning

Universal learning has become the widely accepted preference in the field of education. Universal learning refers to the design of instructional materials and activities that allow the learning goals to be achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember. Universal design for learning curriculum provides multiple means of representation, expression, and engagement (Orkwis and McLane 1998).

Art incorporates the universal design in an intrinsic way. Art offers a variety of ways for learning goals to be met, offers an alternate means of instruction, gives students another means of expression, and provides students with engagement during the learning process.

“Universal design for learning is achieved by means of flexible curricular materials and activities that provide alternatives for students with differing abilities” (McLane 1999). It has been the author’s experience that students who have visual impairments respond incredibly well to having a variety of learning opportunities and activities in the classroom.

Creative art projects provide benefits to visually impaired students that may seldom come to them from any other school activities. A few of the most obvious educational reasons for encouraging visually impaired students to experience art are:

1. to teach an academic concept;
2. to experience the pure pleasure of the tactual experience;
3. to have the joy of creating;
4. to build self-esteem (the effect of the process on the artist is as important as the effect the art has on others);
5. to relieve stress through self-expression (when students who have visual impairments are actively involved, it often builds credibility with their peers and increases social interaction).

None of these is mutually exclusive. It is likely that all of the above will occur.

Laws

In 1997, the Individuals with Disabilities Education Act (IDEA) declared that students with disabilities must be given the opportunity to be involved in and progress in the same general curriculum taught to all other students in the public educational system. Art is a part of our culture and everyday lives. It is included, if only by chance, in other disciplines throughout the curriculum.

Public Law 94-142 grants “education in the least restrictive way” to special-needs students. Section 504, part of the Federal Rehabilitation Act, states that no disabled individual shall be excluded from participation on the basis of his or her impairment.

Although many teachers have no specialized training for teaching students with visual impairments, they may be required to teach them in their classrooms. It is the author’s hope that this handbook will assist teachers in using art as a tool for teaching, as well as a guide for art with all students who may have non-traditional ways of learning.

Art Enriches Us All

In 1975, Deborah Myer founded the innovative Central Park East School in Harlem, New York. She states:

The arts are fundamental to children’s education because art is fundamental to human beings. The primary reason we need art in schools is because human beings are artists. To cut kids off from an essential part of their nature is wrong (Music of the Heart 1999).

It is a pleasure to witness a student discovering a new means of self-expression. Remember, it is the expression, not the final product, that gives it worth. Unlike other aspects of education, its value is not measurable, because what happens in the heart of the artist cannot be scored.

**Which Project or Media?**

Selecting the Appropriate Project

It is no secret to the teacher of visually impaired students that each student is different. To other teachers, the differences may not be as obvious. It is important to note that the amount of vision loss varies greatly among those considered visually impaired. When choosing an art project, the degree of vision must be considered. Most of our students with visual impairments have some vision, but there are numerous art projects that totally blind students can do with great success.

Before choosing a project, look first at the lesson plans of the student’s classroom teacher. Look ahead for lessons that might be easily paired with one of the art projects in this book. Gather the supplies and schedule a time in advance for one simple art project. Start with something uncomplicated, preferably one that can be completed in one session. The classroom teacher may like the whole class to do the project. If so, you could collaborate, and the student with visual impairments would benefit from working alongside his peers.

When working with a student who is visually impaired, consider the student’s age, degree of fine motor skills, interest in creativity, topics of interests, tactile defensiveness, and attention span.

Age

It is important that the visually impaired student does not feel she is doing something that is more childish than her peers. If done in a classroom with sighted peers, the project should be one that all the children can achieve. Although the overall objective is not an acclaimed piece of art, the end product of the visually impaired student should be comparable to her peers.

Degree of Fine Motor Skills

It is not uncommon for students with visual impairments to also have cerebral palsy or other disorders that affect the muscular system. In the case of cerebral palsy, the muscles may be spastic, rigid, or move involuntarily. Cerebral palsy presents a range of conditions from mild to severe. When selecting an art project for a student with a muscular-system disorder, try something simple before presenting a project that could cause the student to fail and not develop positive self-esteem. Avoid having containers of paint nearby that could easily be tipped over. Make certain to provide adapted handles for art tools. The student’s occupational therapist may be able to provide assistance.

If the student does not have a muscular problem, it is still wise to test fine motor skills in play activities before presenting art projects. This approach will give you the information you need when selecting the appropriate art project for the student.

Interest in Creativity

Many students are eager to create. However, keep in mind that art ought not be a forced endeavor. Sometimes a reluctant student will join in if there are peers participating nearby who are enjoying themselves. It is important to consider the student’s area of interest before selecting a project. Most art projects can be adapted to suit the interests of the student.

Topics of Interest

The success of any art project is directly linked to the student’s interest in it. Knowing the student’s likes and dislikes will help. While a young boy might balk at making a jewelry box, he may change his mind if it’s a Mother’s Day present or a gift for a girlfriend. Learning about famous male artists and what they accomplished – such as Leonardo da Vinci and his inventions -- also can be a motivator for reluctant boys. When art is forced, it loses a great deal of its value to the student.

Tactile Defensiveness

Some students with visual impairments are less than eager to touch new things. If the resistance is strong, do not force them. Instead, introduce art with a familiar material, such as paper. If the student wants to participate but is reluctant because of the feel of certain materials, offer to assist with that material.

Attention Span

The younger the student, the less time the art project should require. For younger students, it is advisable to select projects that can be completed in one session.

As students grow and develop, they are able to attend to a task longer. Art can help improve attentiveness. Students work with their hands throughout the project and often maintain attention through completion.

If your first attempt is not successful, do not give up. Use what you learn for the next attempt. The rewards will be worth the effort.

**When Can You Find the Time for Art?**

If you are an itinerant teacher of students with visual impairments, your time probably is already at a premium. Art may seem like a frill to you. It may be considered a recreation, not an essential element of the curriculum. You may think it certainly not worthy of taking up the valuable lesson time with a student who is learning braille reading, for example. Since I was an itinerant teacher, I can understand all of these concerns. However, I have seen what happens when art is presented to students with visual impairments, and I encourage other teachers to try it.

Art is much more than a frill. It is a basic part of our human nature to create. Evidence indicates that when students participate in the arts they are more successful in other areas of study as well. Especially exciting to me is what art can do to enhance other lessons. When art is integrated with another subject, it confirms the concepts through tactual experience. Visually impaired students need hands-on knowledge to increase their learning potential. Art provides that and much more. And remember, you do not have to be an artist to present an art project. The student will be the artist.

**Do’s and Don’ts**

Do’s

Do discuss the project before students have access to materials.

Do allow students time for thought and creativity.

Do assist students with implementation of their designs when they ask for it.

Do encourage students to discover their own favorite medium.

Do offer frequent verbal encouragement.

Don’ts

Don’t tell students how to create the design.

Don’t expect a masterpiece.

Don’t talk too much about the visual appeal of the artwork.

Don’t evaluate our work.

Don’t be concerned about the mess.

**General Supplies to Keep on Hand**

Image Description: Line drawing of a pair of scissors.

* Scissors
* Razor-blade cutters
* Tape
* Glue
* Poster board
* Towels
* Stainless-steel bowls
* Measuring spoons
* Measuring cups
* Paper towels
* Newspapers
* Plastic grocery bags
* Bowls or tubs with lids
* Work-play trays, available from the American Printing House for the Blind
* Old shirts, aprons, or medical scrubs
* Plastic tablecloth to protect the table

**Projects**

Image description: A pair of hands form a pinch pot from clay. Additional items include two stars, a flower of feathers, a clay fossil imprint, and a fish skeleton sculpture.

* Fake Fossils
* Raised Line Drawings
* Sandscript
* Mural
* Aluminum Repoussè
* Papier-Mâchè Bowls
* Free-Form Fuzzy Wire Shapes
* Fuzzy Wire Animals
* Mixed-Media Puzzle of Me
* Weaving
* Wire Sculpture
* Pinch Pot
* Coiled Pot

**Fake Fossils**

Image descriptions: A photograph of three clay impressions of shells. A line drawing of one clay impression of a shell. A line drawing of a rolling pin on top of some clay and a pair of hands using a plastic knife to trim clay.

Objectives: Students will

* use hard objects to make impressions in the soft surface of clay
* show how the image created by the impression is a reversal of the object that created it
* identify which object made each impression

Materials:

* Polymer clay (or self-hardening clay)
* Rolling pin
* Cookie cutters or plastic knives
* Flat magnets
* Glue
* Cookie sheet
* Items for making impressions: coins, buttons, screws, nuts, bolts, seashells, greenery, etc.
* Access to an oven (if clay requires baking)
* Large flaked glitter (optional)

Allow students time to examine items. Students also may bring items from home.

Steps:

1. Soften a small amount of clay by kneading. Glitter can be added to the clay during the kneading process to add a little more contrast and interest.
2. Roll out clay to one-fourth-inch thickness (the thickness of the student's little finger). Cut a small shape, approximately two inches in diameter, using a cookie cutter, or use a plastic knife for a free-form shape. It must not be too heavy, or it will not stick to the refrigerator.
3. Select item for embossed design.
4. Press item into the clay.
5. Roll the rolling pin over it for an even impression. (Tell students to be extra careful if using a fragile shell.)
6. Carefully and slowly lift out the item.
7. Have the student notice the outline created as well as the texture and feel of the impression. Ask the student to match the original object with the impression in the clay. If the child is heavy-handed or does not have fine-motor skills, wait until the fake fossil has hardened so the child does not smash the indentation.
8. Bake the polymer clay in oven according to instructions or let self-hardening clay dry overnight.
9. After it is completely cool, glue magnets to the back.

Image description: A line drawing of three buttons, a shell, and four chopsticks.

Fake Fossils Companion Lesson: Fossils Are Fun

Lesson Objective: Students will comprehend and be able to explain in simple terms the creation process of a fossil.

Preparation: If possible, have examples of real fossils for the students to examine, allowing them ample time.

Presentation: Fossils are the hardened remains or traces of plants or animals that lived thousands or millions of years ago. They were formed when dead plants or animals were buried in mud or sand at the bottoms of rivers, lakes, swamps, and oceans. Bacteria eventually decomposed the dead plant or animal. The action of the bacteria produced carbon dioxide in the sediment. Combined with iron from the ground water around it, the remains formed siderite (ironstone). The combination of rapid burial and rapid formation of siderite resulted in excellent preservation of many animal and plants that ended up in the mud. After a very long time, probably thousands of years, the pressure from many layers of sediment above them turned the remains into rock.

Show students a fossil and ask them to tell what living thing could have made the impression. Was it a plant, animal, or the shell of a creature? Ask how they came to their conclusion.

Long ago, the world was different. There were many plants and animals on the land and in the water that no longer exist today. Where we live may have been under water at one time. The earth is constantly changing. Give an example pertaining to your local region, such as beach erosion, earthquakes, rerouting rivers, exposed fossil beds, glaciers, or waterfalls.

Fossils help scientists understand how life on earth has gradually changed. Fossils are like pictures or impressions captured in the earth and saved forever.

Enrichment:

1. Bring a fossil and tell about the plant or creature that formed it.
2. Report on one natural way that the earth’s surface changes, such as earthquakes, erosion, or volcanoes.

**Raised Line Drawings**

Image description: Photograph of circles drawn on Quick Draw Paper.

Objectives: Students will

* create images combining shapes and lines
* predict the results as they create a design
* develop manipulative skills when tracing

Materials:

* Quick Draw Paper, available from American Printing House for the Blind
* Water-based markers
* Selection of items with round perimeter, such as a cup, lid, coaster, small flower pot, compact disk (CD), cookie cutter, wheel from toy, or funnel
* Selection of rectangle-shaped items, such as a small box, CD case, cassette-tape case, or ruler

Image description: A line drawing of a pair of hands drawing a circle by tracing a lid.

Steps:

1. Present the items for the students’ examination.
2. Select an item and demonstrate tracing around the edge onto the Quick Draw paper using a water-based marker. Slow passage of the water-based marker over the paper creates a higher raised line.
3. Allow students to examine the raised-line shape created on the Quick Draw paper.
4. Students trace around an object of their choice.
5. Demonstrate a design made with a combination of various shapes.
6. Encourage students to experiment with creating their own designs on the paper.

Enrichment:

1. Demonstrate a design of overlapping circles.
2. Fill in the areas created where the circles overlap.

Image description: A line drawing of a flower made of a centered large circle surrounded by 12 overlapping smaller circles.

Raised Line Drawings Companion Lesson: Round and Round We Go

Lesson objective: Students will recognize and describe a circle, sphere, and cylinder.

Materials:

* Metal washer
* Cardboard tube from a roll of paper towels
* Small ball
* Wikki Stik©, wax string
* Construction paper

Presentation:

Define:

* Sphere - a round solid whose surface is at all points equally distant from the center, such as a ball, globe, sun, or moon
* Circle - a closed curved line around a center point, such as a circle around the moon
* Cylinder - any long, round object -- solid or hollow -- with flat ends, such as a pipe

Lesson 1

Give each student a small ball, Wikki Stik, and construction paper. Instruct students to wrap the Wikki Stik around the ball, then remove it carefully to retain the circular shape. Lay the Wikki Stik flat on the construction paper and examine the circle. Repeat this process and emphasize that it will always make a circle.

Lesson 2

Point out the numerous geometric shapes in nature. Explain there are many round or circular objects that cannot be touched or handled. Ask students to name some round items. Be sure that the sun, moon, and bubbles are included. Pass items around to students and have them name them -- circle, sphere, cylinder. Ask how the items are alike and how they are different.

**Sandscript**

Image description: The letters “L” and “W” written in raised letters made of sand and dried glue.

Objectives: Students will

* identify the elements of line and space
* experiment with formation of letters

Materials:

* Glue
* Construction paper
* Play sand
* Plastic tub or bowl
* Newspapers

Steps:

1. Show the student an example of a Sandscript that has dried.
2. Pour play sand in plastic tub.
3. Spread newspaper on work surface.
4. Lay construction paper on newspaper.
5. Have student hold one edge of construction paper as she forms her initials with glue. Some students may need assistance.
6. Assist student in sprinkling the sand over the glue design. Some students may need practice sprinkling sand into the tub before actually doing it on the construction paper.
7. Shake excess sand onto newspaper.
8. Allow the glue to dry completely.
9. Students may make several “scripts,” each on a different sheet.

Image description: Line drawing of hands applying glue to paper and then sprinkling sand over wet glue.

Sandscript Companion Lesson: Language at Our Fingertips

Lesson Objectives: Students will

* develop awareness of letter formations
* be able to explain the reason for a standard in handwriting

Materials:

* Raised-line alphabet cards
* Examples of lettering from various languages

For Your Information: Sighted children observe others using pencils, pens, or other writing tools to make meaningful marks on paper. They imitate this behavior, first by scribbling, making individual marks, and then by forming those marks into letters. They “write” before they know what writing really is. Visually impaired children may not observe others using writing implements and don’t imitate because they haven’t observed. They may not be motivated to write because they are not aware that people write. Part of readiness for writing consists of establishing a familiarity with writing as a communication technique. Visually impaired children must be shown, either visually or tactually, that abstract configurations (letters or raised dots) have meaning, that they can be combined to form words, sentences, and stories, and that people can record them in some kind of reusable form. It is the ability to record the abstract configurations that constitutes “writing” (Bishop 1996).

Presentation: Explain to the students that not everyone uses the same letters we do. Show a quill or old writing instrument. If possible, allow students to attempt writing with it.

Ask questions to establish the importance of having a standard in handwriting. For example: What might happen if my letter G looked completely different than your letter G? Explain the importance of consistency, especially for such things as written directions for medication.

Explain that letters are representations and the combinations of letters make words. Allow students to make up their own words. Point out that the word only has value if everyone knows what it means.

An extension of this lesson could be the story of Louis Braille and how he developed the raised-dot code still used today.

For more advanced students, present a lesson on the invention of the printing press.

**Mural**

Image description: Photograph of a mixed media mural showing tress and mountains.

Objectives: Students will

* define mural
* plan composition and colors before starting to paint
* arrange materials for easy accessibility
* mix colors deliberately
* create original artwork

Materials:

* Newspapers
* Large paper, approximately thirty-six inches by five feet
* Scissors
* Glue
* Tempera paints and/or puff paint
* Foam paint applicators
* Plastic plates
* Water in tubs or other containers
* TowelsSponge cutouts of animals, leaves, etc. (Students may like to cut their own shapes out of flat sponges.)
* Sand
* Various textured papers or fabric: foam paper, textured wallpaper, wrapping paper, tissue paper, wax paper, foil, plastic wrap, etc.
* Various items for additional texture: string, ribbon, sticks, leaves, etc.

Steps:

1. Explain what a mural is and discuss how murals are different than other paintings. Explain that murals often express a point of view.
2. Spread newspapers on the floor.
3. Lay out paper with newspapers extending out from around all the edges.
4. Put small amounts of paint in the plastic plates.
5. Demonstrate the use of the sponge shapes by carefully dipping them into the paint and blotting them onto the paper.
6. Sand can be sprinkled over the wet paint for texture.
7. Shapes can be cut out of paper or fabric and glued to the mural.
8. Allow students to practice on a small section of the paper.
9. Cut the practice section off.
10. Instruct students to examine the size of the sheet and plan the project. The students may wish to select a theme for the mural. They may want to plan the spacing by laying out the sponges to be stamped and the other items to be glued on the paper.
11. Allow the students to select the colors of paint to be used. You may show how colors can be mixed to create other colors.
12. Allow the students to create original artwork using a variety of items and textures.
13. Allow paint and glue to dry completely before transporting.

Mural Companion Lesson: Giant Pictures

Lesson Objective: Students will exhibit an understanding of what a mural is and how it differs from other artwork.

Presentation: A mural is a work of art applied to a wall or other large surface.

Murals are different from other paintings:

1. They are much larger, and figures are big enough to be seen from a distance.
2. If they are outdoors, they must be able to stand up to the weather.
3. They can tell a story or create a scene.
4. They can make a powerful political statement about cultural issues, which can be viewed by many people over a long period of time.
5. They often are accessible to many people because they often are painted in public places.

Some of the first murals were called frescos. Frescos are made of a combination of pigment and lime water applied to a wall while the lime plaster is still damp. The fresco becomes part of the wall. Many very old fresco paintings still exist today in buildings in Europe. Ancient Roman artists decorated homes with murals showing gardens and architecture as well as gods and mythical heroes. Artists such as Duccio, Giotto, Mantegna, and Masaccio came before Michelangelo, Piero della Francesca, and Raphael. Florentine painter, artist, and sculptor Giotto was recruited as a young sheep herder and eventually changed the history of art. He made his images lifelike and used perspective. “He based his painting on what he saw” (Vaughan 1965).

Modern art includes murals as well. Some cities have murals painted on the sides of buildings. Some modern muralists were Josè Clemente Orozo, Diego Rivera, and Thomas Hart Benton.

Leonardo da Vinci, sometimes called the “genius of all arts,” painted one of the world’s greatest paintings, The Last Supper, on the wall of a convent hall. It was painted directly on the plaster, and twenty years later the mildew caused it to begin to flake off the wall. Leonardo also was a great inventor. Among his many ideas were the helicopter, the bulldozer, and portable homes on wheels. He was the first scientist to understand fossils and to call the human heart a pump. He also was the first to express the idea that the earth is not the center of the universe.

Creating a successful mural requires careful planning and hard work. Ambitious classes may want to create a fresco mural using a tempera-plaster mix on a mat board.

Enrichment:

Students may explore the following report topics:

1. What is a fresco and why and how were they painted?
2. How do murals affect the people in a way that a book does not?
3. How did Giotto change art?
4. What were Diego Rivera’s contributions to art?
5. Research the scientific work of Leonardo da Vinci.

**Aluminum Repoussè**

Image description: A photograph of a square piece of aluminum showing a raised drawing of a bird.

Objectives: Students will

* define repoussè, reversal, and engraving
* plan and verbally explain the plan before creating a design

Repoussè refers to an item shaped or decorated with patterns in relief, formed by hammering and pressing on the reverse side of a pliable surface, especially metal.

Materials:

* Thin aluminum sheets (Diagramming foil is available from American Printing House for the Blind; light-gauge foil is available from art suppliers and in kits from craft shops.)
* Piece of rubber floor mat, a thick stack of newspapers or Tactile Marking Mat, available from American Printing House for the Blind
* Masking or electrical tape for wrapping edges
* Poster board
* Scissors
* Tools
* Stainless-steel forks
* Dull stainless-steel table knives
* Grapefruit spoons
* Tracing wheels, available from fabric stores
* Sturdy metal cookie cutters
* Small block of wood to place over cookie cutter (Some cookie cutters have a rubber pad on the topside, which is great for stabilizing when pressing or tapping on it.)
* Rubber mallet

Preparation:

Make some sample patterns using the tools that will be available to your students. Place tools in an orderly fashion near samples of each. Encourage students to return tools to their places for easy access and more independent work. Use sorting trays for easy access to tools. Pad the work surface with the Tactile Marking Mat, rubber mat, or a thick layer of newspapers.

Steps:

1. Define art relief and repoussè. Show an example, if possible.
2. Explain and illustrate the process of engraving. Place the aluminum foil sheet over the mat. If you are using aluminum sheets from the American Printing House for the Blind, these have a white, coated side for marking your design in pencil. Position this side facing up. Make simple impressions on a small piece of the foil. Have students observe tactually as you create a pattern with each tool and indicate which tool makes each pattern. Allow students to examine the tools.
3. Explain and show the students how to use the mallet and cookie cutters. A small block of wood placed over the cookie cutter will distribute the pressure of the mallet evenly as it hits the surface. The cookie cutter may slip when hammered, so students may need assistance to keep it in place. Show students how to hold tools, if necessary.
4. Define reversal. Demonstrate by using a dull pencil or wooden tool to engrave a C into the sheet.
5. Have the students feel the engraved line by placing one hand on the impression and the other hand on the raised line on the flip side.
6. Allow students to experiment using various tools on a practice sheet.
7. Make a small raised mark or pattern in the upper right corner of the students’ aluminum to help them determine the topside and upper edge as they are working.
8. Encourage students to think through a design before beginning. Older students may choose to make a pattern out of poster board and trace it. Or, students can use polymer clay to create a three-dimensional form of a familiar object, such as a banana. The form can be placed on the aluminum and gently pressed to flatten the clay against the foil. The student may then outline the form with one of the tools. This process illustrates how to create a two-dimensional outline from a three-dimensional object.
9. Have students check the reverse side frequently as they work. Wrinkles may be smoothed with a tool or by hand.
10. When complete, tape the finished work to a board, poster, or cardboard backing.

Image descriptions: A line drawing of a mallet over a wood block, over a star cookie cutter, over a sheet of aluminum. Fingers feeling a raised letter “C” on a sheet of aluminum. A large, cursive letter “C.”

Repoussè Companion Lesson: The Earliest Art

Lesson Objective: Students will be able to explain the qualities of repoussè and be able to tactually identify repoussè.

Preparation: If possible, present a carved tile, copper toiling, or a metal ceiling tile that features a raised design. Allow students to examine it before you begin.

Presentation: Explain that art relief is the projection of figures or designs from a surface.

Throughout the ages, art has been used to tell stories. Most often the illustrations were carved or painted on stone, usually cave walls. This early art depicted events and surroundings. Sometimes these early artists created a relief, which is a work in which the figures or designs project from their background or are carved into it. In the Cave of Addaura, in Sicily, Italy, the rock engraving Ritual Dance is thought to have been created between 15,000 and 10,000 B.C.

Art relief has been discovered in ancient tombs dating to about 2400 B.C. Two examples are the art reliefs found in the tomb of Ti, an Egyptian architect. They show Cattle Fording a River and Ti Watching a Hippopotamus Hunt. Both illustrate common human activities of the times. Panels of doors in early Christian churches were carved with relief to tell Bible stories because most people at that time could not read. The illustrations represented events in Christ's life.

An art relief can be created by making an impression on the back side of a pliable surface or carving into a hard surface.

Impression is the mark or stamp made with pressure on the surface of material. When this is done on metal, it is called repoussè. Repoussè is a very old form of metalwork.

Enrichment:

Lower Elementary

1. Write a list of things in your environment that have some engraving on them.
2. Write a list of various ways that items can be engraved. Ask adults for help.

Upper Elementary

1. Report on metal armor adornments.
2. Report on other artwork made with metal.

Image description: Line drawing of two stars.

Repoussè Companion Lesson: Math Transformers

Level: Upper Elementary

Lesson Objective: Students will be able to predict and demonstrate the results of sliding, flipping, and turning two-dimensional shapes.

Preparation: Out of construction paper, make simple examples of two identical triangles and a rectangle. Have available an aluminum sheet and simple engraving tool for demonstration.

Presentation: Explain to students that a symmetrical object is one that has exact correspondence of opposite parts in size, shape, and position. Show an example of a symmetrical figure on an aluminum sheet. Cover one side with a card or piece of paper and allow students to examine the exposed side. Change the paper to the other side. Ask students to explain how the two sides are alike.

Demonstrate and allow students to experiment with the following mathematical transformations:

Sliding: Show how sliding one triangle over an identical one illustrates they are the same.

Image description: A line drawing showing a white triangle sliding horizontally and overlapping a black triangle.

Rotation: Present a rectangle, and then turn it 90 degrees while the student feels it move. In the process, explain the term rotation.

Image description: A line drawing showing a finger rotating a black rectangle on a flat surface.

Flipping: Engrave a trapezoid on an aluminum sheet and allow students to examine both sides. Show how flipping (turning over) a trapezoid transforms the two-dimensional shape. Allow students to trace the shape with their fingertips.

Image description: A line drawing showing two trapezoids positioned on a flat surface as if they are reflections of each other.

Repeat the demonstration with special attention to the unique qualities of each figure.

Enrichment:

1. Create a list of items in your environment that are symmetrical.
2. Write a paragraph explaining how using a slate and stylus is similar to flipping a shape in math.

**Papier-Mâchè Bowls**

Image description: A photograph of a multi-colored bowl.

Objectives: Students will

* use fingers to remove excess glue from paper strips
* use hands to smooth the surface as wet strips are applied to surface
* define a mold

Materials:

* Newspapers or papier-mâchè kit from a craft store
* Scissors
* Cereal bowls
* Petroleum jelly
* Flour or commercial papier-mâchè paste
* Tempera paint and brushes (optional)

Steps:

1. Cut the newspaper into strips approximately one-half inch by four inches (using a paper cutter speeds up the process) or follow directions from the craft kit.
2. Cover the outside of an inverted cereal bowl with a thin layer of petroleum jelly. Define a mold. Explain that the bowl will serve as the mold. Image description: A line drawing showing fingers spreading petroleum jelly on the outside of a bowl.
3. Mix flour with water to a smooth consistency of thick gravy, or follow directions on the commercial paste or craft store kit.
4. Show students how to dip a paper strip into the paste and slide it between thumb and forefinger to remove excess.
5. Place the pasted strip onto the inverted bowl and smooth out wrinkles. Image description: A line drawing showing fingers smoothing paper strips on the outside of a bowl.
6. Continue to layer strips all over the bowl until it is completely covered. Image description: A line drawing showing fingers adding more layers of paper strips to the bowl.
7. Allow to dry for at least 24 hours.
8. Apply another layer of strips and allow to dry (this process can be repeated as many times as needed to reach the desired thickness). Be sure there are no uncovered areas.
9. Once all layers are dry and hard to the touch, students may remove their new bowls.
10. Students may choose to paint the bowls with tempera paint. Bowls also can be decorated and used as hats.

Papier-Mâchè Bowl Companion Lesson: Upside Down and Inside Out

Lesson Objectives: Students will

* be able to explain or demonstrate the concept of reversals using simple objects
* be able to name three items that are made with molds
* develop their concept of form

Materials:

* Common items that are molds, such as muffin tins, candy molds, gelatin molds, and cake pans
* Common items that are made from molds, such as candy, mold-pressed cookies, bar soap, candles, flower pots, some figurines, plastic cups, television remotes, ballpoint pens, and crayons
* Store-bought kits for making fun things with molds (optional)

Presentation: Explain that a mold is a hollow form in which a liquid or plastic substance is poured. It is also a frame around which something can be shaped or formed

Have students examine the molds. Discuss the materials that are put into the different molds. Why is the mold hard and the material put into it soft or liquid? Allow students to examine some items made from molds. Discuss the production process. The mold is made from something very strong, like metal. A single mold can be used over and over to make a large number of items. That is why they all look alike.

Molds are made in many sizes. Molds are used to make false teeth and crowns for teeth. Sculptures often are made from molds. Molds were used to make many of the objects we see every day, such as light switches, hairbrushes, toothbrushes, plastic storage containers, and telephones.

Enrichment:

1. Serve flavored gelatin or butter cookies that have been made with molds.
2. Bring to class some items from home that were made with molds. What materials were used?
3. Place several layers of wet toilet tissue squares over a mold or rubber stamp. Gently press the tissue into any tiny crevices. When the paper has dried, carefully remove the mold and you have a tactile image ready for painting.

**Free-Form Fuzzy Wire Shapes**

Image description: A photograph showing a multi-colored pipe cleaner sculpture.

Objectives: Students will

* plan the creature to be created
* create a base (armature) for an original sculpture
* manipulate pipe cleaners to form a simple sculpture

Materials:

* Big Fat Pipe Cleaners by KLUTZ (Small pipe cleaners may be used.)
* String
* Tape

Steps:

1. Demonstrate ways to manipulate a pipe cleaner. Bend it around the base of a cup to make a circle, around a small box to make a rectangle, and around your finger or pencil to make a spiral.
2. Bend it around a square box, folding two opposing corners over each other to make a triangle, and tie or tape.
3. Give students the opportunity to experiment, giving them a few pipe cleaners to start and adding sparingly as work progresses.
4. Students may link the shapes together and hang them like mobiles or tie a string to each shape to hang separately. They may enjoy displaying them in the classroom or taking them home to hang in their rooms.
5. Small pipe cleaners may be used to make Shape Necklaces, following the same steps as above.

Image description: A line drawing showing fingers twisting a pipe cleaner around a pencil. A necklace with a coiled pipe cleaner pendant.

Fuzzy Wire Shapes Companion Lesson: Fuzzy Fun Shapes

Lesson Objective: Students will be able to demonstrate differences between a straight line and a crooked line and between a circle and a square.

Presentation: Show students a straight pipe cleaner. Ask if they know the difference between a straight line and a curved line. Show them using the pipe cleaner. Wrap the pipe cleaner around the base of a drinking glass to create a circle. Show it to the students and ask what it is called. Do the same with a small cube or a square box. Have examples of other articles that represent straight and crooked lines. A ruler is a good example for a straight line. Explain why it is important that rulers are always straight. Twist ties, wire, clothes hangers, and a twisted branch are possible examples for crooked lines. Articles that demonstrate circles, not spheres, include flat lids to round containers, coasters, and plates. Examples of squares include some greeting cards, picture frames, and lids to boxes. Have students trace a finger around the edge, keeping one finger at the starting point.

Image description: A line drawing showing curved lines and a straight ruler.

**Fuzzy Wire Animals**

Image description: A photograph of a four-legged animal made with pipe cleaners.

Objectives:

* Plan the creature to be created
* Create a base (armature) for an original sculpture
* Manipulate pipe cleaners to form a simple sculpture

Materials:

* Big Fat Pipe Cleaners by KLUTZ or regular pipe cleaners
* Craft sticks, twigs, or dowels
* Newspaper
* Small ball
* Toilet paper tube
* Glue and masking tape (hot glue gun optional)
* String
* Embellishments such as: pony beads, button eyes or paste-on eyes, cardboard for tails, toothpicks for claws

Steps:

1. Demonstrate various ways to manipulate a pipe cleaner:
	1. Wrap it around finger or pencil to make a coil
	2. Wrap around a wad of paper towel or newspaper
	3. Bend it against itself
	4. Make zigzag lines with it
	5. Link one piece to another by making hooks on the ends
	6. Wind around a small ball
	7. Wind around a toilet paper tube
2. Give students the opportunity to experiment.
3. Share a story with the students and ask them to imagine a creature or favorite animal from the book. Discuss the characters and talk about their traits, such as how they might feel to the touch and their size. Explain that artists often create works that represent something else. Let students know that the artist has freedom of expression and that it can be fun to experiment.
4. Invite students to create their own imaginary creatures. Instruct them to first form the torso out of wadded newspaper, paper towels, or a toilet paper tube.
5. If the creature is to have arms, legs or horns, students should use masking tape to attach craft sticks, twigs, or dowels to the torso, creating a sturdy skeleton.
6. Give students a few pipe cleaners to add to the creature, forming hands, antennae or other details. Pipe cleaners can be connected to one another by making tiny hooks on the ends, hooking them together and then twisting so that they do not come apart. The student may need some assistance when attempting to attach pipe cleaners to one another. Provide additional pipe cleaners as needed.
7. Cardboard, plastic, and foil may be glued or tied to the creature.
8. Eyes can be glued on or pony beads can be threaded onto the pipe cleaners for eyes.
9. You may have to use a glue gun for plastic attachments. Students should not use the glue gun.
10. Encourage individual and unique creations.

Image description: A line drawing showing armature of an animal and then a second drawing showing half of armature wrapped in pipe cleaners.

Fuzzy Wire Animals Companion Lesson: What Is Art?

Lesson Objectives: The student will

* develop an understanding of art as an abstraction of something real
* understand that art is self-expressive

Materials:

* Teddy bears and other stuffed animals, along with photos of the real animals
* Primitive wooden art pieces
* Any figurine that is a replica of a real animal, person, or thing
* Taxidermy specimens, if possible

Presentation: What is art? Art is something that is created using imagination and skill. It does not have to serve a functional purpose. Sometimes art is created on the surface of functional items. Art expresses the artist’s own emotions or interpretation of circumstances. Sometimes art is just for fun.

Have students examine stuffed toys, primitive sculptures, or carvings. Talk about how the real thing is similar to and different than the artist’s rendering. If you have a taxidermy specimen, show that it is very much like the real thing.

Emphasize that art is expressive; it shows how the artist feels or thinks about something.

Since each person is unique, each person’s art also is unique. And that is okay. Tell students that art is not always intended to be pretty or decorative. Sometimes we can say with art what we cannot say when we talk or write. Ask the students for examples. When they are angry, it might not be appropriate to scream at a person, but they can mold, roll, pound, and squeeze clay, and no one is hurt. Suggest they can draw or paint a picture to show how they feel. Encourage them as they respond.

Enrichment:

Students can bring a piece of artwork to share. Explain to the class how it is like and unlike the real thing it represents.

**Mixed-Media Puzzle of Me**

Image description: A photo of art paper divided into six equal parts—three over two. The six squares contain either a circle scribble, a star, a feather, the initials “KL,” a feather-string design, and a fabric covered hair elastic.

Objectives: Students will

* express ideas and feelings in artwork using variety in form and line
* produce artwork using a variety of materials appropriately
* place forms in orderly arrangement to create a design
* express ideas about personal artwork

Materials:

* Brailler and paper
* Scissors
* Glue and tape
* Poster board, cut in half lengthwise
* Fabric scraps
* Various papers, such as tissue, chip bags, and textured wallpaper
* Trim, such as feathers, buttons, pom-poms, and scraps of fur or leather
* Cotton balls scented with oils

Preparation: On the poster board, use glue or string to form one line through the center lengthwise and two vertical lines, creating six equal spaces. Cut the flat materials into pieces that will fit into the squares on the poster board.

Steps:

1. Talk to the students about self-expression. Explain that our likes and dislikes are different. Each of us has favorites, which help make us who we are. Discuss favorite foods and music.
2. Pass around several examples of the materials, and encourage the students to talk about which ones they like and which ones they do not like and why. Allow them to smell the scents. Students also may be encouraged to bring items from home for this activity.
3. Explain that artists often create art to express how they feel about the world around them.
4. Instruct them to create a puzzle about themselves by putting something different in each square on the poster board. Each square can be a separate design or all the squares can form a whole piece. Brailled poems, words, and names can be used as part of the design.
5. Encourage originality. Allow students to use found objects, such as twigs, locks of hair or dry cereal if they can be attached to the poster board.
6. Assist the students with the application process. This project may be completed over several sessions.
7. Have students present their artwork and talk to the group about what they produced.

Mixed-Media Companion Lesson: Gates to Paradise

Image description: A line drawing of a flower made of leaves/feathers.

Objectives: Students will

* identify the use of art in historical architecture
* identify simple ideas expressed through various media
* expand their art vocabulary

Presentation: Hundreds of years ago artists created art for churches. The printing press had not been invented and many people could not read. They depended on the art in the churches to tell the stories of their faith. An artist named Lorenzo Ghiberti was asked twice to create art for the doors of a cathedral in Italy. The first time, he and his assistants spent 20 years completing the project. Each door contains fourteen large reliefs in square frames. Made of gilded bronze, they depict scenes from the lives of Christ, the evangelists, and the church fathers. Later, when he created art for the second door, he used fewer frames. These doors show five scenes from the Old Testament. They were so magnificent that Michelangelo said they could be “Gates to Paradise” and that is what they are called today.

Enrichment:

Read biographies of Donatello or Ghiberti.

**Paper Weaving**

Image description: A photo of a mat woven with smooth orange foam and tactile beige foam.

Objective: Students will develop an understanding of the basic process of weaving.

* Materials:
* Textured wallpaper, foam paper, fine sandpaper, or other textured papers
* Ruler
* Scissors
* Poster board
* Stapler

Preparation:

1. Cut poster board into a twelve-inch square.
2. Choose two different textures of wallpaper, and cut each into a ten-inch square.
3. Mark parallel lines one-half inch apart on each wallpaper sheet. For younger students, mark lines one or two inches apart.
4. Cut along lines, stopping one inch from edge.
5. Place both wallpaper squares on top of the poster board, positioning the uncut edge of one perpendicular to the uncut edge of the other.
6. Staple the uncut edges to the poster board.

Image description: A line drawing of two sheets of paper, each cut with parallel lines leaving one inch intact.

Steps:

1. Allow students time to examine the strips and their textures.
2. Using the hand-over-hand technique, begin the weaving process with the student. Begin at the corner where the two stapled edges meet.
3. When finished, tape or staple the loose edges to the poster board.

Image description: A line drawing showing a two-step progression of hands weaving the two sets of strips together.

Weaving Companion Lesson: Tapestry of Life

Lesson Objectives: Students will experience the craft of weaving from the cultural viewpoint of Native Americans develop respect for traditions and contributions of Native Americans

Materials:

* Annie and the Old One by Miska Miles published by Little, Brown and Company, 1971, or another book on the subject of weaving in the Native American culture.
* Examples of woven goods

Presentation: Read the book aloud to the students. Afterward, allow time for discussion. Encourage questions and answers within the group if you have two or more students. If you are working with one student, here are some possible topics for discussion:

Sometimes grandparents live in the same home with their children and grandchildren. Do you have grandparents? Where do they live? How often do you visit them?

In Annie and the Old One, why is it important that Annie’s mother finish the blanket?

Name some things that you use that have been woven.

Talk about the process of weaving.

Finally, discuss the importance of weaving. Talk about the numerous items we use that are woven. If possible, present some examples of woven goods.

Enrichment:

1. Have a talk with an older person, perhaps a grandparent, and write about what you learned.
2. Write about a time when you tried to stop – or wished you could have stopped -- something from happening.
3. Introduce vocabulary words: alternate every other one, warp. Left angle and right angle.

**Wire Sculpture**

Image description: A photograph of a wire airplane attached to a board.

Objectives: Students will

* experience the flow of lines by manipulating wire into a shape
* begin to comprehend the elements of line in space
* develop manipulative skills when working with wire
* invent images by handling and forming the wire into shapes

Materials:

* Styrofoam base, two inches high by five or six inches square
* Fourteen- to sixteen-gauge aluminum wire
* Wire cutters
* Masking tape

Steps:

1. Explain the art term, armature. Armature, which comes from the word armor, gives strength to the sculpture. It serves as its skeleton. For this project the wire will be the armature. It can be the final piece, if the artist wishes.
2. Introduce the materials. Caution students about sharp wire tips. You may wrap ends with masking tape as an added precaution.
3. Demonstrate the wire cutters, and allow students to use them on sample pieces of wire.
4. Show students how to stick one end of the wire through the Styrofoam and bend it 90 degrees to form a base for the structure. Tape may be applied over the wire for additional support.
5. Students form the wire into original shapes. Encourage abstract design. It could represent a feeling or adventure.

Image description: A line drawing of a block of Styrofoam with 90-degree bent wire in it.

Advanced Steps:

1. Apply papier-mâchè, using the wire armature as the framework.
2. Attach tissue, fabric, and other items to add interest to the piece.
3. Glaze or paint if desired.
4. Image description: A

Wire Sculpture Companion Lesson: My Framework

Lesson Objectives: Students will

* learn that bones give strength, structure, and protection to the human body
* define joints as the connectors for our bones

Materials:

* Some animal bones, if possible
* Demonstration skeleton, if possible

Presentation: Ask questions:

* What part of your body is hard?
* What makes it so?
* What would you be like without bones?
* Can bones break?
* Can bones heal?
* What can you eat and drink to keep your bones strong?

Explain that the skeleton is a framework of bones that gives the body shape and protects important organs. Joints, operated by muscles connected to the bones, enable us to move. The human skeleton has about 206 bones. We have sixty bones in our hands and arms alone.

Image description: A line drawing of a fish skeleton.

Invite students to examine the bones brought in for discussion.

**Pinch Pot**

Image description: A photograph of a three-color pinch pot.

Objective: The student will demonstrate an understanding of the history and culture of art in the form of pottery and relate art to everyday life.

Materials:

* Polymer clay (such as SculpeyTM)
* Paint brush (optional)
* Glaze or craft paint (optional)
* Metal or wooden carving tools (optional)

Steps:

1. Explain that primitive cultures made their own pots from clay. Some have been found in archaeological sites. The pinch pot is believed to be one of the first types of pots ever made.
2. Soften a handful of clay by kneading.
3. Roll the clay into a ball.
4. Holding the ball with fingers, press thumbs into the center of the ball.
5. Rotate the ball and continue to press, being careful to keep the sides a uniform thickness. Eventually, it will resemble a small replica of the pinch pots made many years ago.
6. Texture may be added to the top edge for effect. Tools may be used to create a design on the outside of the pot.
7. Press the base against the tabletop to create a flat base.
8. Bake in a conventional oven according to the directions on the package.
9. When pot is completely cool, paint with a glaze or craft paint. Painting is not necessary if colored clay was used.

Image descriptions: A line drawing of two hands holding a ball of clay. The thumbs press into the ball forming a cavity. The fingertips form the edges of the pot.

Companion Lesson: Decorative Pots

Lesson Objective: Students will be able to discuss how decorations were applied to clay pots many years ago.

Presentation: Thousands of years ago, people spend most of their time gathering or hunting food and preparing it to eat. Pots were needed for the food. Clay was available to most people, and they began making simple pots from the clay. Although the pots were simple, they had decorated surfaces. The earliest decorations were simple lines cut into the surface with fingernails or the edge of a stone. One of the oldest pottery pieces ever discovered was in Japan, and it’s believed to be from 10,000 to 10,500 B.C. Through the years, the decoration of pottery has become a fine art. Highly refined pottery can be very expensive.

Image description: A line drawing of a snake and a sun.

Enrichment:

1. Show students various types of pottery and let them feel the decorations.
2. Organize a field trip to a local party or artisans shop.

**Coiled Pot**

Image description: A photograph of a coiled pot

Objectives: Students will

* manipulate clay to form evenly shaped coils
* use a fork to texture the coil without damaging it
* stack the coils evenly on top of one another
* use a spoon to smooth and blend the coils

Materials:

* Polymer clay ( such as SculpeyTM)
* Fork
* Spoon
* Paint brush (optional)
* Glaze or craft paint (optional)

Steps:

1. Explain that primitive cultures made their own pots from clay. Some have been found in archaeological sites. The coiled pot is one of the first types made.
2. Soften a handful of clay by kneading.
3. You may roll out the clay and cut a circle and skip to step seven or follow steps four, five, and six to make the base.
4. Roll a small amount of clay into a “snake” or long coil, about twelve inches long and one-quarter inch in diameter.
5. Wind the coil into a flat disk with the sides touching so that it forms the base of the container.
6. Use the backside of the spoon to blend the coils into one piece and smooth it out. Keep the thickness uniform.
7. Use the tips of the fork tines to press a texture around the edge of the base so it will grab the coil as you attach it.
8. Make another long coil.
9. Attach the new coil to the outer edge of the base, spiraling it on top of itself as you go around.
10. Use the fork to blend the stacked coil as the sides of the container are built.
11. When you run out of coil, taper the end and texture the coil with the fork before attaching the next one.
12. Continue to add coils until the container is the size that you want it to be. Since polymer clay is not very strong, about three inches high is a good recommendation. Another variation is to apply coils in a random pattern (see photograph).
13. If desired, pinch or texture the top edge for effect.
14. Place in the oven according to the package directions.
15. When pot is completely cool, paint with a glaze or craft paint. Polymer clay comes in a variety of colors so painting may not be necessary.

Image descriptions: Line drawings showing hands cutting a circle out of clay using a plastic knife and lid. Hands using fork tines to press texture around the circle. Hands rolling clay into a long coil. Hands wrapping the coil around the circle base. Hands continuing to wrap/attach the coil making the pot higher.

Pottery Companion Lesson: The First Pots and Pans

Lesson Objective: Students will be able to discuss how primitive cultures made pots.

Presentation: Start by asking questions to pique the students’ curiosity about how simple everyday items were invented and developed.

* When early people cooked, what utensils did they use?
* From what materials were they made?
* How were they made?
* Why did they decorate their simple utilitarian objects?
* Why is this considered art?

Long, long ago people did not live in one location; they traveled from place to place where they could find food and game. Later, when people began to farm the land, they could settle down and have permanent homes. Containers were necessary in their homes, just as they are in ours. What types of containers do you have in your home? How do you use them?

Enrichment:

Have students report on the history of the potter’s wheel, the history of manufacturing china, or the evolution of decorative designs on pottery.

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**Appendix**

Suppliers, Product, Source

SculpeyTM(Polymer Clay), Discount, craft, and school supply stores

Hailstones and Halibut Bones by Mary O’Neill, Public Library, local book stores, Internet

Loop scissors, Sammons Preston 1-800-323-5547 www.sammonspreston.com

Big Fat Pipe Cleaners, Klutz www.klutz.com

Papier-mâchè for Kids by Sheila McGraw, Public Library, local book stores, Internet

Work-Play Trays and Dividers, Aluminum sheets, Tactile Marking Mat, The American Printing House for the Blind, Inc., 1-800-223-1839, www.aph.org

**Glossary**

Armature - framework used to support modeling substances such as clay, papier-machè, or plaster

Balance – to make or be equal to in weight, value, etc.

Cerebral palsy – a central nervous system disorder often marked by erratic movement, awkward stumbling gait, and slurred speech

Coil – to wind into circular or spiral form

Congenital – present at birth

Clay – a pliable, fine-grained earth that hardens when fired, used in making bricks, pottery, and tiles

Engrave - to impress deeply as by carving

Eye-hand coordination – movement of the hand as directed by the eye and brain

Fine motor – small movements with hands

Fresco -- a combination of pigment and limewater applied on a wall while lime plaster is still damp. Used primarily for large murals.

Functional vision – the ability to use vision in planning and performing a task

Impression -- mark or stamp made with pressure on the surface of material

Knead – to work and press into a uniform mass

Legally blind – 20/200 central acuity in the better eye, corrected if applicable, or visual fields of 20 degrees or less

Light perception – the ability to discern the presence or absence of light

Mallet - a short-handled hammer with a large head, used to strike a surface without damaging it.

Mold - a frame around, in or on which something can be shaped or formed

Mural – a painting applied directly on a wall surface

Occupational therapist – specialist in providing activities designed to improve skills and movement

Panel - a section or division, usually rectangular, forming part of a wall, door, etc.

Parallel - being an equal distance apart so as never to meet

Perpendicular - at right angles to a given plane or line

Perspective – a drawing or painting technique in which objects represented seem to have distance and depth

Pigment - the part of paint that supplies the color

Polymer clay – a synthetic clay that hardens when baked at a low temperature in a kitchen oven

Relief - projection of figures or forms from a flat surface.

Repoussè – art relief created when shapes or decorated patterns are made by hammering and pressing on reverse side of pliable surface, especially metal

Reverse - turned backward in position

Sediment - mud or sand collected at the bottom of bodies of water

Serrated - having a row of small, sharp teeth like projections along the edge

Spiral – circling around a point in constantly increasing (or decreasing) curves or in constantly changing planes

Symmetrical - having exact correspondence of opposite parts in size, shape, and position

Tactile defensiveness – strong aversion to textures, materials, or even human touch

Tempera - a type of paint made by mixing pigment with a water-soluble substance, such as egg yolk

Top heavy – too heavy at the top, so as to be unstable

Tracing wheel - instrument used to imprint a design on the surface over which it is rolled

Visual impairment – any degree of vision loss that affects an individual’s ability to perform the tasks of daily life, caused by a visual system that is not working properly or not formed correctly