

Unit: Sculpture

A piece of sculpture is a meaningful form in three dimensions. It could be a totem pole, a fountain in a civic square, a weathervane, or a seed pod. If a waterworn beach stone attracts your eye, you share an experience with an ancestor who thousands of years ago discovered a meaningful sculptural form. If you notice the shape of an interesting scrap of wood, you encounter forms that Louise Nevelson would recognize and use. If you notice the rounded sculptural shape of figures on the beach, you share an experience with Henry Moore.

Three-dimensional forms exist everywhere. Michelangelo could imagine their presence inside solid slabs of stone and he carved in order to liberate the images from their marble surroundings. Inuit carvers recognized familiar forms in indigenous materials. Picasso transformed common objects into fanciful sculptural forms. Oldenburg sees sculpture possibilities in everyday objects, ones that make us smile when we see them through his eyes. Rodin's bronzes remind us of the human frailty of the great, Joe Fafard's ceramic sculptures of human dignity in the ordinary citizen.

Whether monumental or miniature, solid or fragile, ancient or ephemeral, floating or self-destructing, sculptures have unique spatial qualities that intrigue artists.

Like all other forms of art, sculpture reflects the imaginings and experiences of artists. The greatest sculptors share vivid ways of seeing, a need for self-expression, and a close affinity between materials and image. Sculptors continue to chisel, model, cast, and carve with the materials of stone, metal, wood, and clay bringing newer ways of working with modern materials to ancient and traditional repertoires of skills. Sculptures can be made from plastic, fabric, or found materials. They can be inflatable, musical, electrical, or architectural. New idols appear; new social issues are addressed. Sculptors help draw out attention to all these things through expression in three dimensions.

Students can share many of these experiences in their own ways, ones reflecting their own place and time. They can look at and consider the sculpture of others and can create their own to gain an understanding of working with imagery in three dimensions.

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Outcomes

Students will be expected to

- SC1 develop personal imagery through sculpture
- SC2 incorporate visual concepts, art processes and process-related concepts in their sculpture to realize their expressive intentions
- SC3 through their own art and the art of others, students will explore the following visual concepts in the sculpture unit
- SC4 through their own art and the art of others, students will explore the following art processes and process-related concepts in the sculpture unit
- SC5 understand and use art vocabulary in oral and written communications
- SC6 understand and explore the elements and principles of design in relationship to 3-D media with an emphasis on balance, form, and texture
- SC7 understand the concepts of functional and nonfunctional as they relate to 3-D media
- SC8 become familiar with various tools, materials, and techniques used in 3-D media
- SC9 understand and demonstrate safety standards and the proper use and care of materials, tools, and equipment

Elaborations-Strategies for Learning and Teaching

Several ideas for sculpture projects are listed below. Teachers and students may use them in a variety of ways. For example, some may be used directly as they appear, while others may be adapted or not used at all. This list may be a starting point from which totally new ideas may be generated.

The number of projects to be completed by a given student or by the class must be left to the discretion of the teacher. The teacher must insure, however, that students are exposed to and gain insight into the visual concepts, art processes and process-related concepts described at the beginning of this unit, and that students are given ample opportunity to develop their art vocabulary in written and oral communication.

- Select forms from nature as a base for an abstract sculpture.
- Create a sculpture of interpenetrating abstract forms in which there is an equal emphasis on positive and negative shapes.
- Create an interesting three-dimensional composition made up of repeated identical forms (modules).
- Make a mixed-media work based on a chosen word or theme. Do not use representational imagery. Create an abstract composition conveying the feelings and/or emotions associated with the subject.
- Make a three-dimensional representation based on a piece of music.
- Choose an object which is normally quite small such as a paper clip, a wristwatch, a bug, etc. and recreate it on a giant scale.
- Choose an object and create a three-dimensional representation of it in which the surface texture and/or colour is altered.
- Alter the perception of an object through camouflage or disguise.

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Suggested Assessment Strategies

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources**Visual Concepts**

- mass and volume
 - light, form, shadow
 - structure
 - scale
 - movement, direction
 - surface, texture
 - open form, solid form
 - balance
 - time
 - motion
 - sculpture-viewer relationship
 - sculpture and context

Processes and Process-related Concepts

- modelling
- direct building
- casting
- relief sculpture
- assemblage
- carving
- construction
- waste mould
- armatures
- additive, subtractive

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Outcomes

Students will be expected to

- SC10 compare and contrast functional and nonfunctional works from different cultures and time periods
- SC11 compare and contrast qualities in own sculptures and in those of master artists
- SC12 compare and contrast in written or oral form the attributes of a variety of functional and nonfunctional works
- SC13 analyze, integrate, and apply the elements and principles of design in creating functional and nonfunctional forms with an emphasis on unity and movement
- SC14 gain knowledge of professional quality materials, tools, methods, and presentation techniques

Elaborations-Strategies for Learning and Teaching

- Make a mixed-media personal totem.
- Research masks. Make one using plaster bandages. Decorate the surface.
- Work on a group mural. Invent visual symbols for aspects of a chosen story, song, event, etc. Incorporate these visual symbols to recreate, interpret, re-express the original topic in a visual language.
- Make a sculpture in which found objects are used to symbolize an emotion.
- Create a sculpture in any medium which conveys the impression of the figure in motion.
- Reinterpret a painting three-dimensionally inside a cardboard box.
- Create a three-dimensional game.
- Create a sculpture through which the viewer moves.
- Plan and execute an outdoor labyrinth.
- Make a sculpture capable of creating sound effects. Those may be induced by the viewer, environmental conditions or mechanical means.
- Make a sculpture in which the environment is manipulated.
- Make a kinetic sculpture. Movement may be induced by the viewer, environmental conditions or mechanical means.
- Create a sculpture which changes as time passes.
- Plan a sculpture which is site specific. If possible, execute it.
- Create a sculpture in which light is the medium.
- Locate and exhibit ready-made sculpture. Label it appropriately.
- Take castings from surfaces and objects to prepare for an assemblage.

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Suggested Assessment Strategies

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources

Vocabulary

- abstract
- aggregate
- additive
- armature
- alloy
- assemblage
- balance
- bas-relief
- bronze
- cast
- cement
- chisel
- distort
- elaboration
- environmental art
- figurative
- plaster
- proportion
- pumice stone
- pediments
- papier mâché
- rasp
- relief
- solder
- space
- flux
- form
- lost wax
- malleable
- mallet
- mass
- model
- module
- monolithic
- monumentality
- mould
- non-ferrous
- patina
- piece mould
- plane
- plastic
- stone
- subtractive
- styrofoam
- terra cotta
- volume
- vacuum
- weld
- waster mould

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Outcomes

Students will be expected to

SC14 demonstrate the ability to safely use and care for specific equipment related to 3-D media

SC15 examine a variety of forms with the same function or theme:

- functional form such as a cup
- nonfunctional form such as a figurative sculpture

SC16 develop works based on research and ideas in his or her sketchbook-journal

Elaborations-Strategies for Learning and Teaching

- Create gestural studies from the human figure, using clay or plasticine.
- Carve a plaster sculpture that would be interesting to a blind person.
- Create small sculptural pieces that could be used as markers for a board game.
- Produce works that show an exploration of elements and principles of art with an emphasis on balance, form, and texture.
- Explore sculptural techniques using additive and subtractive methods in relief and in the round.
- Explore 3-D media processes using materials that may include:
 - wire
 - plaster
 - foam core
 - papier mâché
 - found objects
 - paper
 - clay
 - wood
 - styrofoam
- Create works that show a complexity of ideas with an emphasis on form and positive and negative space.
- Produce works that emphasize unity, movement, and rhythm.

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Suggested Assessment Strategies

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources

For further information about visual concepts in the sculpture unit, please see the following:

Living With Art

Movement and Emphasis, pp. 89-90

Direction, pp. 95-97

Mass, pp. 99-102

Light, pp. 102-104

Texture, pp. 114-116

Three-dimensional Space, pp. 116-117

Time and Motion, pp. 126-128

Unity and Variety, pp. 131-135

Balance, pp. 135-144

Proportion and Scale, pp. 149-152

Practical Sculpture

Form, pp. 1-7

Organizing Form, pp. 8-19

For further information about art process and process-related concepts in the sculpture unit, please see the following:

Practical Sculpture

Materials, pp. 20-26

Clay, pp. 27-84

Molds, pp. 85-120

Metal, pp. 122-149, 193-222

Plaster and Direct Building, pp. 150-157

Wood, pp. 159-174

Stone, pp. 175-192

Living With Art

Sculpture, pp. 263-286

Unit: Sculpture

Outcomes

Students will expected to

SC17 produce works that demonstrate the ability to integrate elements from a specific artist, movement, or culture

Elaborations-Strategies for Learning and Teaching

- Produce sculpture that exhibits a depth of understanding of materials previously explored and materials such as:
 - stone
 - cement
 - fibers
 - plexiglas
 - metals
 - mixed media
- Produce functional and nonfunctional forms that reflect a personal style and more complex ideas:
 - interlocking shapes or multiple pieces.
 - two works using the same theme but with different materials.
 - combining techniques such as hand-built and wheel-thrown forms.
 - combining media such as fibers and clay.

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Suggested Assessment Strategies

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources

It is essential that all students have the opportunity to work with a variety of the art materials cited in the list of basic materials found below. Enrichment materials may be considered depending on time available, financial resources and student experience.

Basic Materials

Clay
Plaster
Plaster tape
Wood
Soapstone/limestone
Cardboard
Papier mâché
Found objects
Wire
Fabric
Chicken wire
Rope
Modelling tools
Carving tools
Carpentry tools
Chicels, mallets, rasps
Glues

Enrichment Materials

Metal
Wax
Propane torch
Plastic

Unit: Sculpture

Outcomes

Students will expected to

- SC18 develop an appreciation of the creation and understanding of contemporary sculpture
- SC19 strengthen their own self-expression and creativity
- SC20 appreciate their community's cultural riches and develop their skills and interests as members of a visual arts audience
- SC21 learn how to better assess their own and other's work
- SC22 investigate both the origins and examples of found-object sculpture
- SC23 understand the evolution of sculpture from found objects introduced in the 20th century through today
- SC24 determine the challenges presented by siting a piece of sculpture
- SC25 design a sculpture using manufactured and/or natural materials

Elaborations-Strategies for Learning and Teaching

Suggested Strategies for Found Object Sculpture:

- Provide opportunity for students to use all available resources to investigate the following questions:
- What examples best reflects your understanding of found-object sculpture?
- What artists have made/are creating work using found-objects as media?
- What is environmental sculpture?
- What artists have made/are creating work using natural objects as media?

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Suggested Assessment Strategies

Discuss the following with students. Advise them to consider aspects of the project before beginning their creation of a found-object sculpture.

- Options for working can be as an individual, with a partner, or as a group.
- Once a decision is made how each student will work, discuss the importance of visiting the selected site; then choose an area of the site for the installation of the found object sculpture. Note to students: The site selected will determine whether or not the work can remain for an extended period of time. Students need to know from the onset of the assignment that their work is to be considered temporary.

Focus students on why they respond aesthetically to a particular location. The following questions may help to focus their thoughts.

How is the site enhanced or diminished by the colors, textures, forms, light, and balance present?

Observe the interaction of the elements in place. How are they ordered?

What expressive qualities present at the site should you consider? In other words:

Is it a tranquil place?

Does it reflect order or chaos?

What evidence do you see of human interaction?

Resources

Images of work such as:

Pablo Picasso's Bull

Marcel Duchamp's Bicycle Wheel, 1913

Louise Nevelson's Night Sun I, 1958

Robert Rauschenberg's Monogram, 1959

Joseph Cornell, James Hampton, and Andy Goldsworthy also present excellent opportunities for further study.

Vocabulary for Found Object Sculpture:

Assemblage

Conceptual Art

Dadaism

Environmental art

Found-objects

Surrealism

Any natural material available for example but not limited to stones, clay, vines, shells, raffia

Any manufactured items available for example but not limited to screws, nuts, bolts, plastic items, glass light bulbs, mirrors,

Assorted household items such as plates, spoons, rolling pins, recyclables

Materials to join and secure objects such as but not limited to hammers, nails, glue, fasteners, wire, string, twine

Camera to document the found object sculpture on site

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Outcomes

Students will expected to

Elaborations-Strategies for Learning and Teaching

Students should gather their materials and ideas. At the designated time, move the supplies on site and construct the found object sculpture.

Ask students to prepare an artist statement in response to their finished work.

Students prepare the written statement in their own words which reflects:

- their understanding of the concept of found object sculpture.
- their attitudes toward found-object sculpture (either pro or con) citing specific examples of materials and techniques that support your personal aesthetic.

Students select examples of images that support their position.
Students share aesthetics statements and discuss how the examples support the statements together in class.
Document the works on site with photographs.

Share artist statements in class.

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Suggested Assessment Strategies

Discuss with students how this information be helpful to them in the development of their work?

Ask students if they want to enhance the mood or create contradictions? Do they want harmony or contrast?

Once the ideas have been generated, present the ideas to the entire class. Ask questions of each other and consider class suggestions.

If time permits, informally critique the work on site. If not, rely on photographs for an in-class critique. During the critique discuss

- the process.
- the works themselves.
- working on site.

Resources

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Outcomes

Students will be expected to

- SC25 analyze differences between culture and pop culture
- SC26 investigate a sculptor whose work reflects popular culture and the way his/her personal experience influences his work
- SC27 research examples of the relationship between culture and the work of chosen sculptor
- SC28 understand that the uses of papier mâché cross historical periods and cultures
- SC29 refine knowledge of papier mâché techniques through demonstration and application
- SC30 reflect on their own experiences and apply criteria to select an image to translate into papier mâché

Elaborations-Strategies for Learning and Teaching

Discuss with students the meaning of culture and the themes of popular culture icons (advertisements, comics, everyday life.)

Culture - the attitudes, values, beliefs, patterns of behavior, social organizations, and concepts of reality of a given people which persists through time. (Salome and Hobbs, *The Visual Experience*. Davis Publications, Inc., 1995.)

Pop culture icons - are referenced in the definition of Pop Art.

Pop Art - An art style, also known as Neo-Dada, developed in the 1950s. Pop artists depicted and satirized popular culture such as mass-media symbols, fast food, billboards and brand name products. (Salome and Hobbs, *The Visual Experience*. Davis Publications, Inc., 1995.)

Sculpto-pictorama - a term invented by Red Grooms, applied to environments that were a synthesis of painting, sculpture, and panoramas constructed to resemble movie sets.

Develop understanding of vocabulary by having students generate examples of each term until you are satisfied that they understand the nuances.

Discuss the history of paper and papier mâché with students.

Notes:

Paper was invented over 2,000 years ago in China. Shortly after, the Chinese began creating boxes, trays, and small figures out of pulped and mashed paper. During the early part of the 18th century, paper was still made by hand. The French sought a method to recycle discarded paper, posters, and handbills. They ground the paper, added glue, and turned them into snuff boxes and other ornaments. Papier mâché is a mixture of paper and glue used as a molding material for both functional and decorative objects. Papier mâché is French for "chewed paper." Some European communities became so adept at the use of

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Suggested Assessment Strategies

Direct students to:

- think about memories or events they have witnessed.
- brainstorm the thoughts and emotions they attach to these experiences.
- create a series of thumbnail sketches that illustrate these events.
- select one of these sketches to interpret as a papier mâché sculpture in the round.

Apply the following criteria to their designs in order to make a selection.

How will this idea translate into planes and surfaces?

Is the quality of the narrative strong enough to illustrate the idea?

What are the cultural influences present in this idea?

Use the critique process; work together as a class to share your ideas and your evaluative criteria.

Resources

Vocabulary

Culture

Pop Art

Pop culture

Sculpto-pictorama

Materials

adhesive (wheat paste or commercially prepared wallpaper adhesive or white glue and water mixture)

armature

paper pulp

shredded paper

water

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Outcomes

Students will be expected to

- SC31 visualize their image in three dimensions to create detailed drawings
- SC32 create and apply an appropriate finish to a papier mâché form
- SC33 write an artist statement that reflects the impact of their own personal experience and culture on their work
- SC34 evaluate their completed work through the use of a rubric

Elaborations-Strategies for Learning and Teaching

papier mâché that they used it to create weight bearing furniture. Examples of these creations can be seen in many museums today.

The use of paper and papier mâché for ritual purposes was popular in Asian and Central and South American cultures. Papier mâché remains a popular medium for decorative works throughout Mexico and other countries today.

Discuss the composition of papier mâché as paper and binder, whether you pre-mix pulp and a binder or dip strips of paper into the prepared adhesive.

Discuss and demonstrate the two methods of papier mâché application.

- Direct method - applying papier mâché directly to the armature in multiple layers. An armature is a skeletal support system created from a variety of materials.
- Indirect method - applying papier mâché to a clay or otherwise formed model in multiple layers. After the layers are dried, the papier mâché is cut in half with a craft knife; the clay or otherwise formed model is removed; and the hollow cast is sealed back together.

Culture and environment frequently influence artistic production. Inspiration can come from personal experience.

Direct students to

- imagine their drawing in three dimensions.
- create detailed illustrations of the selected subject from multiple viewpoints.
- annotate the drawings to include all pertinent information required to fully explain their concept.

Unit: Sculpture**Suggested Assessment Strategies**

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources**Materials**

paper pulp
shredded paper
adhesive (wheat or prepared wallpaper
paste)
armature
wooden bases

Unit: Sculpture

Outcomes

Students will expected to

Elaborations-Strategies for Learning and Teaching

- challenge themselves to think about possible sources for armatures. Paper and/or cardboard tubes, wire, wire mesh screen, and found objects are all suitable armatures.

Direct students to

- construct the armature on a suitable base. Anchor all armature components well. Wrap the armature with paper or other suitable material to pad it before applying the first layer of papier mâché.
- apply alternating black and white newsprint layers with comics.
- test for hardness. When a sufficient number of layers of papier mâché has been applied to maintain a stable form, set the sculpture aside to ensure complete dryness before finishing.
- paint the completed forms with acrylic paint. Seal the painted forms with either a matte or gloss acrylic finish.

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Suggested Assessment Strategies

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources

Unit: Sculpture

Outcomes

Students will expected to

SC34 use a four-step method of art criticism to make independent judgements about works of art

SC35 use appropriate art vocabulary to describe, analyze, interpret, and evaluate a work of art

Elaborations-Strategies for Learning and Teaching

Instruct students to apply the four-step method to a work of their own.

Ask the class to add any information it feels the individual student has forgotten. Why is this particular information important?

Direct students to work by themselves or in a group to research the following questions and/or issues.

What is significant about your selected artist's background that may have affected his/her work?

Reflect on what your selected artist has selected as subjects for his/her work . Select one piece and comment on it.

Choose a critique about your selected artist and his/her work from a magazine or newspaper review (many sources available online). What does this source say about his/her work?

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Suggested Assessment Strategies

Review the components of the four-step method as listed above.

Identify professional contemporary art critics. Read reviews in art magazines and newspapers.

Discuss the function of professional criticism to inform, both the arts community and the general public about exhibitions of art.

Review and evaluate the exhibitions to guide the public in making informed decisions about attendance and participation.

Students share their individual student criticisms with the class.

Students prepare a written or oral statement to respond to the questions and select an image(s) that support(s) the statement.

When completed, direct students to

- carefully examine the images of General Bronze from all available sides.
- fill in each category of the worksheet completely, with as much detail as possible.
- share their responses.

Create a catalogue for the annual art show. Include critique information on selected works and biographies on the exhibiting artists. Design an art newsletter or magazine. Established, emerging, and student artists would all make excellent subject matter.

Resources

The Four Step Method: Description, Analysis, Interpretation, Evaluation

Step 1. Description In description, list only factual information, strictly what is observable and verifiable.

Label (Name, artist, size, medium, location, date of production)

Subject Matter (Be as specific as possible.)

Elements and Principles

Step 2. Analysis In analysis, the focus is on artistic choice. How has the artist organized the subject matter, elements, and principles? Compare and contrast the use of elements and principles. (For example, The artist has created contrast through the use of bold geometric shape juxtaposed with softly curving organic shape.)

Sensory Qualities

Formal Qualities

Technical qualities

Step 3. Interpretation Interpretation must be rooted in the visual image itself or in verifiable sources of information beyond the artwork. Do not create meaning beyond what can be grounded in the work.

Use of metaphor

**Additional sources might include:
artist's personal commentary
and exhibition catalogues**

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Outcomes

Students will expected to

- SC36 become familiar with examples of kinetic art
- SC37 make distinctions between the terms mobile and kinetic art
- SC38 create an original kinetic sculpture
- SC39 install the sculpture at home, school or in another identified location
- SC40 evaluate their completed sculpture according to specific criteria rubric

Elaborations-Strategies for Learning and Teaching

Draw students' attention to hanging mobiles. Ask the students which principle of composition does the mobile rely upon? (Balance)

Remind students that balance refers to visual weight, and in kinetic art, especially mobiles, physical weight as well. Symmetrical balance, in its simplest form, is a mirror image on either side of a central axis; while asymmetrical balance implies equal visual weight on either side of a central axis but does not imply a mirror image.

Ask students, "Where in the mobile might we see examples of either or both symmetrical and asymmetrical balance?"

A mobile is a delicately balanced arrangement of thin rods or stiff wires and objects suspended from them. The entire construction hangs from a thin filament and is moved by slight air currents. The mobile was named by its inventor, American sculptor Alexander Calder. The stabile, also invented and named by Calder, resembles the mobile but is rigid and stationary rather than flexible and suspended.

Using a variable speed electric fan, direct a gentle air current toward a hanging mobile. Ask students to respond to the following prompts:

Describe the reaction of the mobile to the air current. Do the support pieces move in response to the air?

In what direction do the individual pieces move?

Describe the construction of the mobile.

Look at the mobile again. By nature of its definition and construction, what are the limitations to the structure as it is installed?

Develop, with students, the notion of kinetic art. Show pictures of examples. Kinetic art is a general term for all artistic constructions that include moving elements, whether actuated by motor, hand crank, or by natural forces, as in mobiles.

Ask students to consider how computer technology might aid them in the development of a project. CAD is an acronym for computer assisted design.

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Suggested Assessment Strategies

Ask students to respond to the following questions regarding the development of their assignment:

- What materials will you select?
- How will you arrange the elements to create a unified composition?
- What armature or support structure will you construct?
- Are there any particular engineering challenges posed by the architecture of the site?
Consider the constraints of the location you selected for the installation of your sculpture (i.e., eaves, slanted roof)?
- Will there be air currents to activate your sculpture?
- How will the construction be lighted?

Students should create a series of thumbnail sketches and then select one idea for elaboration. The final drawing should include the answers to the questions indicated above. Instruct students to exchange drawings with each other to allow for peer review. Questions or concerns should be discussed between students.

Apply the air current(fan)to the materials other than the mobile by hanging other materials from line (i.e. styrofoam balls, foil cut outs, etc.) How do these materials react to the air current?

Ask students to begin thinking about their possible inclusion into an original construction. What other materials might be included in the sculpture? Have students select materials and begin the construction.

Students can construct the sculpture in class only up to a point. The final work must be completed where the work will be installed. Instruct students to take photographs of the installed work. Ask students to describe any unexpected complications that occurred during installation.

Resources

Materials

sample mobile
access to research materials, print and internet resources
variable speed electric fan
sample materials (Styrofoam, cardboard, metal tooling foil)

The following list contains some suggested materials:

metal tooling foil
glass shapes (i.e. circles, squares, diamonds)
plastic
wire and/or fishing line
styrofoam
wooden shapes and cutouts
glue
paper
tools
hammers
awls
drillshears
variable speed electric fan

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Outcomes

Students will be expected to

- SC41 distinguish between the categories of stone and indicate which categories of stones are most appropriate for sculptural carving
- SC42 understand that carved sculptural forms are the oldest form of sculpture
- SC43 familiarize themselves with the work of stone sculptors from various historical periods and across various cultures
- SC44 use hand tools appropriately to experience traditional methods of carving sculptural form

Elaborations-Strategies for Learning and Teaching

Discuss with students the meaning of:

Igneous - formed as the result of volcanic activity, hardest of stones for carving (granite).

Metamorphic - sedimentary rocks subjected to intense heat and pressure forming a more dense product than sedimentary, suitable for carving (steatite, alabaster, marble).

Sedimentary - very porous rock formed from pressure on layers of shell and sand, generally too soft for carving (sandstone, limestone).

Sculpture in the round - sculpture intended to be viewed from all angles.

Introduce historical and cultural stone sculptural images. Discuss the various styles and approaches these images reflect.

Provide opportunity for students to practice the use of the various chisels, stone hammers, and rasps. Caution students to hold the chisel at an angle, never vertically. While much of the beauty of these stones is the result of color carried by the veins, this veining causes the stone to be fragile and to split easily.

Assign students to create a palm sized image of their choice from steatite. The sculpture may be non-objective, abstract, or representational. As a motivating question, ask students to think about what an archaeologist or an artist think about the person or civilization that created it, when they unearth it 600 years or so from now?

Students may draw an image and then select a stone suitable for the intended form or students may create the sculpture based on careful observation of the stone itself. Both are valid approaches.

When finished discuss how students' appreciation for stone sculpture has changed as a result of working in stone.

Ask students to select an image previously shown. Discuss the piece of sculpture in light of their knowledge of tools and technique.

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Suggested Assessment Strategies

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Resources

Samples of igneous, metamorphic, and sedimentary rock (borrow from the science lab)

Images of stone sculptural form throughout history. Select images from the resources available to you. Include examples from both Western and non-Western tradition.

Possible examples might include:

Egyptian statuary from the various kingdoms

Pre-Columbian architectural carvings and objects

Works by:

Michelangelo

August Rodin

Constantin Brancusi

Henry Moore

Barbara Hepworth

William Zorech

Isamu Noguchi

Walter Dusenbery

Jesus Morales

Louise Bourgeois

small pieces of materials for carving

carving tools such as stone hammers, rasps, files, and chisels

several grits of wet or dry abrasive paper (two hundred, four hundred, and six hundred weight at least)

wax for polishing (any colorless paste furniture wax will do)

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Outcomes

Students will be expected to

- SC45 research an idea or concept throughout Western and non-Western art history (eg. portals)
- SC46 explore the use of various techniques in order to create a sculptural of the concept

Elaborations-Strategies for Learning and Teaching

Have students:

Review the history of portals from the earliest post-and-lintel construction to today. Images of the early architecture of stone circles such as Stonehenge provide an introduction to the concept of post-and-lintel architecture.

Collect images of sculptural portals across a variety of historical periods and cultures that incorporate fundamental architectural principles such as post-and-lintel and the arch. Stonehenge, Roman basilicas, the Parthenon, etc. Be sure to include the various decorative orders of columns employed by Western and non-Western cultures throughout history.

Discuss the symbolic connection and the physical sense of portals. What is the importance of a portal other than the purely functional one? While many of the historical images are stone, relate the connection between the qualities of stone and the qualities of clay.

Demonstrate a review of hand-building techniques. Remind students to wedge their clay before use and to keep their clay under plastic to prevent premature drying.

Students create multiple thumbnail sketches of portals which lead to locations of their choice. The locations can be real or imagined. The portal may exist in the past, present, or the future.

The finished clay portal should be at least 12 inches high (depending on availability of materials). Students may make the portal as simple or complex as they wish.

Finished portals should be constructed in the round but may demonstrate relief work on various facades.

Portals may be constructed in multiple pieces and assembled after firing if clay is the material of construction.

Write an artist statement to reflect the intention of the portal.

Share artist statements with the class.

Unit: Sculpture

Suggested Assessment Strategies

Please see Appendix A for sample assessment/evaluation strategies and rubrics. These are guides which can be adapted to meet the specific criteria of your activities. See also Section 4: Assessment and Evaluation of this guide.

Resources

Vocabulary

slab - clay rolled out to a specified thickness. Pieces may be bent to shape, draped over a form or left flat.

pinch - clay rolled into a ball and then indented with the thumb. The form is rotated in the hand and hollowed out.

coil - building up the form by using rope-like pieces of clay.

greenware - clay that has thoroughly air-dried prior to any firing.

bisque - clay that has lost its chemical water due to being subjected to heat.

fire - the application of heat to clay to bring it to maturity.

kiln - a furnace for firing clay material.

glaze - a liquid suspension of minerals applied to clay and fired to create a glasslike finish.

underglaze - color applied to the surface of clay prior to firing.

smoke patina - creating a smoke finish to the fired clay similar to raku firing.

plasticity - the quality of clay that allows it to hold shape without cracking or sagging.

porosity - the quality of clay that describes the water in the clay to dry out without cracking.

vitriification - the quality of clay that allows it to become glass-like when fired.

Unit: Sculpture

Outcomes

Students will expected to

- SC47 understand processes used in the creation of metal sculpture
- SC48 experiment with the direct-pour process using available media
- SC49 make sensory observations about the direct-pour process

Elaborations-Strategies for Learning and Teaching

Discuss with students the meaning of vocabulary terms. Casting is the general term used to describe any process where a mold is created. Various methods can be used to cast including but not limited to sand casting, plastercasting and lost wax casting.

Have students research a living artist (using print and or Internet sources) and replicate an experience to approximate the process he/she uses. Ask students the following

What questions would you ask the artist if he were in front of you now?

What information would be necessary in order for you to complete your understanding of your selected artist and his/her work? Instruct students to individually generate a list of questions. When they have finished, have students conduct an interview with their selected artist. This can occur face to face or via email.

Unit: Sculpture

Suggested Assessment Strategies

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Resources

George Collins Labrador Stone Carver -
Information and Carvings
http://www.labradorart.com/George_collins.htm

safety gear

ventilators and dust masks

face shields or safety glasses

exhaust fan

stoneware or other ceramic clay with a
significant degree of plasticity

clay loop tools, texturing tools, and
fettling knives

glaze and under glaze materials

wooden dowels or plastic rods for
support.

kiln or other method of firing clay

aluminum or bronze (if casting in metal)

casting slip, liquid clay

casting sand (generally has a petroleum
product additive to help hold the
indentation)

sculpture wax (pliable yet will sustain a
shape)

crayons

paraffin, candle wax (can be brittle)

plaster

heating element (whatever is appropriate
for the medium selected)

assorted containers

water

Unit: Sculpture

Outcomes*Students will be expected to***Elaborations-Strategies for Learning and Teaching**

Working with metal requires a specialized studio facility. If you do not have one available, seek out a Technology teacher to work with you. Do not attempt a direct-pour using molten metal unless you are highly skilled in working with molten metals. The safer method would be to use casting sand, such as "Petrobond," and create organic indentations in which to pour the sand.

Each of these techniques require strict adherence to studio safety regulations.

Choose a medium and practice.

The next step is a matter of choice. Decide whether you want to demonstrate the technique for the students, or have students discover the outcome for the first time when they manipulate the material.

Discuss with students the meaning of vocabulary terms. Indicate that the vessel used to heat a material to a liquid state is called a crucible. Demonstrate the technique, if that is your choice. If not, provide direct instruction in the technique of choice.

Instruct students to

experiment with the technique.

create sufficient forms to respond to the following prompts.

Describe your response to the technique.

How easy or difficult was it to manipulate the material?

Are the forms as you envisioned them?

A finished piece is not a requirement of this lesson. You may wish to stop after the experimental phase. It is important, however, to have a discussion about the results of their experiments.

Unit: Sculpture

Suggested Assessment Strategies

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Resources

Teacher Preparation

Experiment with the medium of choice until you are comfortable manipulating the liquid material. The idea is to take a liquid medium and pour it onto a surface that will allow you to create “puddles of material.”

Expose a container of slip (liquid clay) to the air. Allow the water to evaporate until the slip is the consistency of heavy cream. When the consistency is correct, and this will take some practice, pour the slip onto a plaster surface. Move and tilt the plaster until you have a shape that appeals to you. Pour several puddles and experiment by putting the shapes together to make a pleasing construction. Slip and “Magic Mender” can be used to “glue” the pieces together if they are joined during the hard slab stage (the clay still retains some moisture, but will crack).

Plaster will respond in a similar manner as the slip. Mix the plaster to a consistency between the liquid and putty stages. Pour the plaster on a non-porous surface such as Formica.

Wax can be heated in a suitable container and poured directly into water bath. Wax solidifies upon contact with the water bath. The result is like a drizzled sand castle. Remove the wax from the water when it has cooled. These pieces can be joined together by applying heat to selected areas.

An alternative method would be to create sand casts and pour the liquid material into the sand casts. This will create a slightly more controlled response. Create shapes by indenting into the sand. Pour the liquid material into the hollowed out sand. Once solidified the cooled material can easily be removed from the sand.

