NATIONAL MUSEUM OF WOMEN IN THE ARTS

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# Art, Books, and Creativity (ABC) Curriculum

## Lesson 7: Sculpture

### Grade Levels

3 to 5; 6 to 8; 9 to 12

### Subjects

Visual Art; English/Language Arts

### Lesson Overview

Students will look at sculpture and explore the materials artists use to create sculptures. They will learn that sculpture is often meant to be viewed from multiple sides and that its forms change depending on the position of the viewer. Students will create a sculpture using paper and found objects.

### Guiding Questions

- How do artists use forms and materials to construct meaning?
- How do writers use various techniques to construct a text?

### Length of Lesson

Two 45-minute periods

### Key Ideas That Connect Visual Arts and Writing

#### Visual Arts

- Sculpture is a three-dimensional work of art.
- Sculpture often invites the viewer to engage from multiple sides.
- The meaning of a sculpture is constructed or interpreted based on the perspective of the viewer.
- Artists use a wide variety of materials to create sculpture.

#### Writing

- The meaning of a written text changes depending on the perspective of the writer.
- The meaning of a written text is constructed or interpreted based on the perspective of the reader.

- Writers use a variety of techniques such as traits, format, literary elements, and character development to add dimension to a written text.

## Instructional Objectives

### Visual Arts

Students will:

- Identify sculpture as an artwork that exists in three dimensions
- Create a sculpture that is interesting from multiple sides
- Observe and discuss a variety of sculpture created from different materials

### Writing (Optional Activities)

Students will:

- Add text to a sculpture
- Rewrite a well-known story from a different perspective
- Given a scenario from the classroom, select a character or object to do a quick write

## For the Teacher

Sculpture is an art form that has three dimensions: height, width, and depth. It is often meant to be viewed from all sides, and its meaning can be constructed and enhanced based on the perspective of the viewer. Sculptures can be created from almost anything traditional materials, such as stone, wood, clay, and metal; other materials, such as plastic and paper; and found and recycled objects. The materials an artist chooses to create sculpture can help communicate the meaning of the artwork.

### Looking and Seeing

Some things to notice when looking at Frida Baranek's **Untitled**:

- **Shape and form**: The sculpture's dense central form is a circular mass of rusted iron wire. It is bisected with bent iron rods. The interweaving of wire and rods gives the sculpture a linear quality, almost as if it were drawn in space.
- **Materials**: Although Untitled looks like it could have been woven from sticks or grasses and might roll easily, it is made of iron wire and rods and weighs approximately 90 pounds. Baranek often uses industrial scrap, such as steel, wire, heavy metal sheets and tubes, and even airplane fuselage, to create delicate, nest-like objects that appear organic.
- **Process**: The sculpture was created using an additive process. Baranek uses heavy tools and foundry equipment to transform industrial waste into sculptures that look light and airy. Her works illustrate the idea that everything, even trash, can have meaning if reused and remade into something else.

For additional artworks to include with this lesson, please view this **art gallery**. To read about the artists and works included in the gallery, search the artist's name at **nmwa.org**. To learn more about the featured artist, check out **Frida Baranek's artist profile**.

### Vocabulary

- **Sculpture** is an art form that has three dimensions: height, width, and depth.
- **Two-dimensional** shapes can be measured in only two ways: height and width.
- **Three-dimensional** forms can be measured in three ways: height, width, and depth.
- A **shape** is an element of art with two dimensions of measurement: height and width.
- A **form** is an element of art with three dimensions for measurement: height, width, and depth.
- An **additive sculpture** is created by constructing, building, or fastening materials together.
- A **subtractive sculpture** is created by carving, trimming, or removing material to reveal or render the desired form.
- **Found objects** are things from the world around us (natural or manufactured) that can be used to create a work of art.

## Instructional Plan: Observe, Create, and Reflect

### Observe: Quick Write

Before beginning the lesson, show Frida Baranek's **Untitled** to students. Give them a few minutes to respond to the image. Use any of the following prompts:

- What do you think about when you look at this sculpture?
- If this sculpture were alive, where would it live?
- If this sculpture made a noise, what would it sound like?

### Introduction

Introduce sculpture to your students. Ask them if they have seen any sculptures before. If so, ask students to describe the sculptures and what it was like to see them. Tell them that sculpture is a **three-dimensional** art form that, unlike a painting or drawing, can be measured in three ways: height, width, and depth. It is often meant to be seen from multiple sides. A sculpture's form changes depending on the position of the viewer. There are two ways to make sculpture: by building or constructing (**additive** sculpture) or by carving or removing (**subtractive** sculpture). Sculptures can be made from almost any material. The materials an artist chooses to create a sculpture can help communicate the meaning of the sculpture.

### Observe: Look and Discuss

Ask students to look closely at Baranek's **Untitled** and begin describing and interpreting what they see. **Visual Thinking Strategies** is a highly effective method for facilitating productive conversations about art with your students and introducing new vocabulary in a meaningful way.

Following the conclusion of this initial exploration of the work, you may wish to revisit certain concepts in more depth using some of the following questions:

- What do you see? What else do you see or notice about this sculpture?
- What are the main **forms** or **shapes** in this sculpture?
- What materials do you think the artist used to make the sculpture?
- Is it **additive** or **subtractive**? How can you tell?
- If you could touch the sculpture, what do you think it would feel like? What materials do you think were used to make the sculpture? Has the artist used **found objects**? How can you tell?
- What would it look like from another viewpoint, such as from the side or above?
- How big do you think it is? How heavy? Does it look easy to move?
- What do you think about when you look at this sculpture?
- Is this a realistic or abstract sculpture?
- What words would you use to describe this sculpture? What title would you give it?
- How is looking at sculpture different from looking at **two-dimensional** art, like paintings?

Now give students more information about the sculpture. Tell them that it is made from iron wire the artist salvaged from industrial scrap. It is nearly four-feet tall and more than six-feet deep (43 by 39 by 75 inches) and weighs almost 90 pounds. Ask students:

- Does this information change your interpretation of the sculpture? If so, how?
- What do you think the artist wants to communicate? How do the materials help convey the meaning of the sculpture?
- What do you think it would be like to see this sculpture in person?
- How would the sculpture's meaning change if it were carved from stone, made from a natural material like grass, or created with a new material that the artist bought at a store?
- If you could add words to this sculpture, what words would you add? Where would you place them?
- Would adding words change the meaning of the artwork? How?

## Create: Paper Sculpture Hats

### Supplies

- 12-by-18-inch construction paper, various colors, 1 sheet per student (Prepare these in advance by making diagonal cuts approximately 6 to 8 inches long from each corner toward the center of the paper.)
- Strips of construction paper 1 in. to 2 in. wide, cut with paper cutter, various colors
- Tacky glue and glue sticks
- Scissors
- Pencils

- Stapler
- Embellishments such as sticker dots, geometric stickers, feathers, sequins, buttons, etc. (optional)
- Student journals

### Activity: Assemble Hat

1. Have students choose a 12-by-18-inch piece of pre-cut construction paper. Supply each student with pencil, scissors, and some tacky glue, set out on small paper plates or a square of tagboard; supply each table with a selection of paper strips.
2. With the paper on the desk, bend the long sides up towards the center, and cross the triangular tips on one side. Staple to secure. With the hat on the head of the student, cross the triangular tips on the other side, take the hat off, and staple. The hat should have an oval base that goes around the head with two triangular flaps sticking out to each side.

### Activity: Form and Meaning

Students will turn their hat into a wearable sculpture by adding at least ten manipulated strips of paper to their hats, referring to the paper-folding or inventing their own techniques of paper manipulation. (Teachers may wish to demonstrate all or some of the techniques and how to glue the strips to the hat bases.)

- Ask students to think about what they want their sculpture to express: Will it be a formal exploration of line, shape, color, or other elements of art in and of themselves? Will it represent a specific idea, person, or theme? What lines, shapes, and colors would best convey their subject?
- Encourage them to keep in mind that sculptures are meant to be viewed from multiple sides and have three dimensions. How will their hat look from different angles?

Once students have finished adding manipulated strips of paper to their hats, pass out any embellishments if you are using them. Have students think about adding embellishments to contribute to their design rather than overpowering it.

To complete their sculpture hats, have students divide each of the triangular flaps into five sections by cutting four lines towards the center of the hat (being careful not to cut all the way through, or running into the original cuts). Encourage them to cut different types of lines: zigzag, curvy, and wavy. Once the sections are cut, they can manipulate the strips in any way: curling, accordion folding, and then gluing the strips together up and over the top of the hat to give it height.

### Paper Folding Techniques

Have students experiment with each technique and then try them in various combinations. Encourage them to experiment to create their own lines, shapes, and forms.

**Make a Cylinder**

- Using a rectangular or square piece of paper, curl the ends toward each other. Add glue along one of the edges and stick the other edge to it.
- Experiment! Make tall, narrow cylinders by gluing the long edges together; make short, wide cylinders by gluing the short edges together.

If you want your cylinder to stand up vertically:

- Use scissors to make a series of short, parallel cuts around one end of the cylinder. Try to make each cut close to the same length and spaced evenly apart. When you have finished, you will have a fringe around the cylinder edge.
- Take each of the fringe tabs and fold it up on the outside of the cylinder; make a crease at the point where your cut ends and the solid cylinder begins. Place your cylinder on a flat surface so that the tabs radiate out from the base and rest against the flat surface.
- To affix the cylinder to a sheet of paper, add glue to the underside of each tab and press them down firmly against the hat base.

**Make a Cone**

- Begin with a paper circle. With a pencil, lightly draw the center line of your circle. It need not be the exact center. Orient your circle so that this line runs left to right.
- With scissors, cut from the edge of the circle up to the pencil line. Aim for the approximate center point of that line.
- Hold the edge of the paper to the right of the cut and pull it across the cut to overlap the paper on the left. The center point of the circle should begin to push upward into a point, forming a wide cone.
- You can use glue or tape to complete the cone as is, or you can continue moving the paper in your right hand over more of the paper on the left. The tighter you draw the paper, the smaller the base of your cone and the taller the center point.
- When your cone looks the way you want, use tape or glue to hold the shape.

Note: For forms with rectangular or square bases, simply fold up the bottom edge of each side to create a solid tab. Depending on the specific shape, you may need to make small cuts at each corner so that the tabs sit flat against the horizontal surface without the paper tearing.

**Join Pieces of Paper**

Join two or more pieces of paper perpendicular to one another by cutting a slits in your paper. For example, to join a smaller triangular piece of paper with a larger rectangular one:

- Decide where on the edge of the rectangle you would like to place the triangle. Make a short, straight cut in the edge of the paper at that point.
- Make a similar short, straight cut into one side of your triangle. Hold the triangle perpendicular to the rectangle and line up the two cuts you made.

- Slide the triangle into the slit in the rectangle until it won't move any farther. If the triangle sticks out more than you want, you can make one or both of the original cuts longer.
- Experiment with different shapes and try cutting the slits to different lengths to see what effects you can create.

### Reflect

When students have finished their sculpture hats, have everyone model their creations. Give students a few minutes to walk around and look at each other's hats. Then, have pairs of students look closely at each other's sculptures and write down their observations. What do they see? What are the main forms? How does it work from different points of view? What might it be about? Have partners share their ideas with each other and write or sketch any new ideas from this exchange in their journals.

Students may also respond to any of the following prompts:

- What questions do you have about sculpture now that you didn't have before?
- What questions would you like to ask artist Frida Baranek?
- Sculpture is....

## Lesson Extensions

### Visual Arts

#### Pop-Up Structure

Have students explore the three-dimensional qualities of pop-up book structures. In advance of this project, you and your students may wish to view this **"how-to" video**, which provides a step-by-step demonstration of how to create a pop-up structure.

1. Place one sheet of 8 1/2-by-11-inch paper horizontally on your desk. (One of the long sides will be closest to you.)
2. Bring the two short sides together to fold the paper in half. Be sure to crease the fold firmly.
3. Place the folded edge closest to you. Use a pencil to lightly draw two parallel lines that are the same length (approximately 2 to 3 inches long). They should extend up from the folded edge.
4. Use scissors to cut along both lines beginning at the folded edge.
5. Fold the cut flap away from you and make a firm crease at the point with it meets the end of the cuts. Unfold the tab.
6. Turn the paper over, still with the fold closest to you, and fold the tab away from you. Crease well as in step 5 and return tab back to the flat position. Note: The crisper your folds, the better your pop up will work.

7. Place your paper on your work surface so that it looks like a tent. Press the flap through to the inside of the tent. Close the paper in half again and press the folds firmly. (With the fold nearest to your right hand, your paper will resemble a blocky C.)
8. When you open the paper again, a box should pop up!

## Visual Arts and Writing

- Ask students to use art vocabulary words to write about someone else's sculpture and/or to describe a sculpture they would like to make.
- Have describe, by writing or drawing, how Frida Baranek's Untitled might look from another perspective, such as an ant's or a bird's point of view.
- Ask students to make a sketch of a sculpture they would like to create.

## Science

Using Baranek's sculpture as an example, have students create a sculpture using a variety of recyclable "found" items brought from home such as popsicle sticks, twist ties, thread spools, foil, bottle caps, newspapers, candy wrappers, or cereal-box cardboard. Pretend the sculpture is being designed and built as a memorial to an event or a person. How does the student's sculpture show visitors the importance of the person or event.

## Mathematics

- Assemble simple plane shapes to construct a sculpture form. Talk about two- and three-dimensional aspects of the parts of the sculpture and the final work. Ask students to look for cubes, spheres, and cylinders in different sculptures. Have them think about balance and proportion and encourage them to use words like perpendicular and parallel, as well as the proper names for geometric shapes. Compare the use of these shapes in art and in math.
- Adding numbers together is a process called addition and taking numbers away from each other, subtraction. An additive sculpture is created by modeling or by fastening materials together. Subtractive sculpture involves removing materials from the sculpture by carving. Promote the use of these words when students discuss how they created a sculptural work.