

Mathematics and Visual Art

Building with Shapes!

First Grade
Lesson by Emma Calderwood

Objectives

Students will:

- Identify shapes found in artwork
- Identify shapes in the world around them
- Create a representation of a structure using different shapes
- Present their artwork to another student

Introduction

Begin by showing the students *Chelsea IV* by Donald Olson from the Springville Museum of Art's permanent collection. Ask them the following questions:

- What is this a painting of?
- What shapes do you see in the painting?
- What questions do you have about the painting?

Show the students *Marine #2* by George Smith Dibble from the Springville Museum of Art's permanent collection. Ask them the following questions:

- What is this a painting of?
- What shapes do you see in the painting?
- What questions do you have about the painting?
- What's different about this painting from the one we looked at before?



George Smith Dibble, Marine #2, 1930



Donald Penrod Olson, Chelsea IV, 1980

Materials

- Book Shapes, Shapes, Shapes by Tana Hoban
- Multi-colored construction paper
- White paper
- Glue sticks
- Scissors

Images from the Museum

- Chelsea IV, Donald Penrod Olson
- Marine #2 , George Smith Dibble,

Utah Core Standards

Geometry, Standard 1.G.2

- a) Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half circles, and quarter-circles) to create a composite shape, and compose new shapes from the composite shape.
- b) Compose three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. First grade students do not need to learn formal names such as "right rectangular prism."

Visual Arts, Standard 1.V.CR.2:

Explore the use of materials and tools to create works of art or design; use art materials, tools, and equipment in a safe way; and identify and classify uses of everyday objects through drawings, diagrams, sculptures, or other visual means.

Visual Arts, Standard 1.V.CR.3: Use art vocabulary to describe choices while creating art.

MATHEMATICS AND VISUAL ART

Building with Shapes!

First Grade

Introduction Continued

Next, explain to the students how artists often use shapes in their artwork, but sometimes, the shapes might be harder to find than the pictures they just looked at. But if we look hard enough, we can find shapes all around us! Show the class Wash Day in Brigham City by Calvin Fletcher from the Springville Museum of Art's permanent collection. Ask the students what shapes they can find in this painting. They may notice the triangular roof or the rectangular windows. Explain how shapes appear all around us.

Learning Activity

Explain to the students that shapes are all around us in the world. Read the book *Shapes, Shapes*, *Shapes* by Tana Hoban. If you don't have access to this book, choose any book that highlights the shapes in the world around us. As you read the book, ask the students what shapes they see in the pictures.

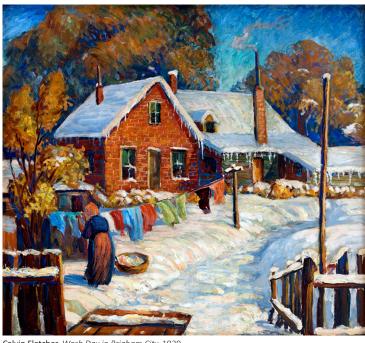
After reading the book Shapes, Shapes by Tana Hoban, take the students on a 5-10 min. walk around their school. Point out the different shapes that make up structures they see.

Art Making Activity

When you finish the walk, come back to the classroom and have the students clear off their workspaces. Provide the students with colored construction paper, scissors, glue sticks, and white paper.

Instruct the students to choose a structure or building (either one they saw on the walk or one they've seen another time) and make a picture of it using shapes. Teachers may decide to pre-cut shapes from different colors of construction paper in order to make this easier for their students.

Give the students time to cut out different colored shapes from the construction paper and glue them to the white paper in the shape of their chosen structure.



Calvin Fletcher, Wash Day in Brigham City, 1929

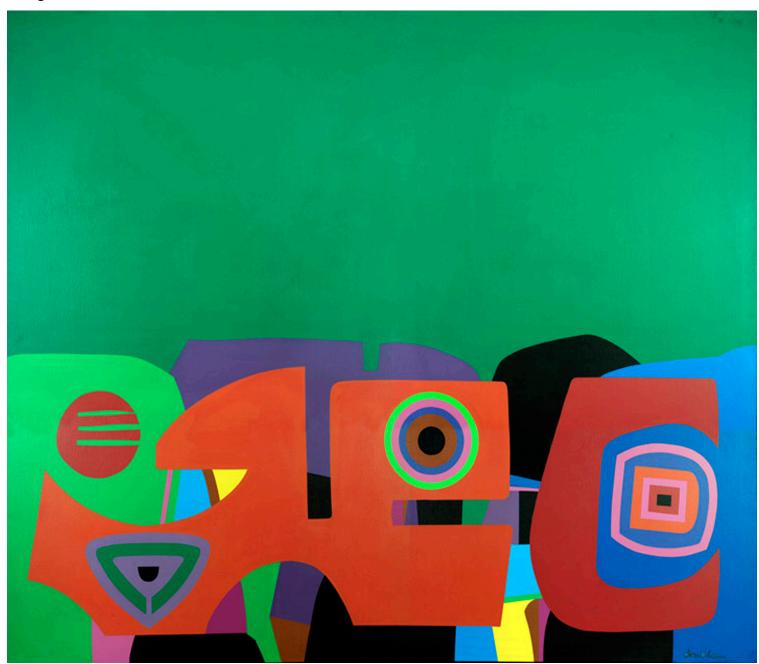
Extensions

Provide the students with 3D objects such as Styrofoam balls, toothpicks and clay. Instruct them to build a structure or building using these 3D objects.

Assessment

Instruct the students to share their shape art with their neighbor. Ask them to explain which shapes and colors they used for which parts of the structure/building they recreated, and why.





Donald Penrod Olson, Chelsea IV, 1980



George Smith Dibble, Marine #2,, 1930



Calvin Fletcher, Wash Day in Brigham City, 1929