Objectives

Students will:
• Understand the meaning of symmetry
• Identify symmetrical objects in their environment
• Create a symmetrical piece of art

Introduction

Explain to students that ‘symmetrical’ is a word to describe an object or picture that is exactly the same on both sides— if you fold it in half, the halves would be identical. Show students *Four* by John Charles Ohran from the Springville Museum of Art’s permanent collection. Ask the students if the sculpture is symmetrical and ask them to explain what that means. Now show the students the same picture, but draw a red stripe on one side of the picture of the sculpture. Ask the students if the sculpture is still symmetrical, and why or why not.

Show the students *Self-Portrait* by Joseph Shepherd Wixom from the Springville Museum of Art’s permanent collection.

Ask the students the following questions:
• Is this painting symmetrical? Why/why not?
• Are there parts of this painting that are symmetrical?
• What parts of the painting are not symmetrical?

Point out that faces might seem like they’re symmetrical, but they’re usually not quite symmetrical.

Learning Activity

Show the students a picture of a butterfly that you find online. Point out that the butterfly wings are symmetrical. Fold the picture in half to show that they are perfectly symmetrical. Show the students a picture of a symmetrical flower and a starfish, or any other natural symmetrical things you come up with. Explain that symmetry occurs in nature. You may also take time to explore your school as a class and find symmetrical objects around them.

Art Making Activity

Ask the students to clear their workspaces. Give each student a folded butterfly template. Instruct them to leave it folded in half so that they can only see one side of the butterfly. Have students decorate half of the butterfly however they want. When they finish with one half, instruct the students to open the butterfly and decorate the second half exactly the same as the first half, so that the sides are symmetrical.

Materials

• Images of symmetry in nature (Butterfly, flower, starfish, etc.)
• Butterfly templates, folded in half, for each student
• Drawing Materials (colored pencils, crayons or markers)
• White construction paper, one for each student
• Washable kids’ paint
• Kids’ paintbrushes

Images from the Museum

• *Four* by John Charles Ohran
• *Self-Portrait* by Joseph Shepherd Wixom

Utah Core Standards

Integrated Core
Standard 1 Objective 3
Develop and use skills to communicate ideas, information, and feelings.

a. Identify and express ideas, information, and feelings in a variety of ways (e.g., draw, paint, tell stories, play, make believe, dance, sing).

Fine Arts Core
Visual Arts: Standard K.V.CR.3
Share and talk about the artwork and the process of making art while creating.

Visual Arts: Standard K.VCR.1
Engage in self-directed exploration and imaginative play with art materials, and engage collaboratively in creative art-making in response to an artistic problem.

Mathematics Core
Geometry: Standard K.MD.2
Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the length of two pencils and describe one as shorter or longer.
Assessment

Have students present their butterflies to the class. Ask the students about their color and design choices and about any challenges they faced. Students should be able to show how their butterfly is symmetrical. Hang the butterflies up in the classroom.

Variations

Pass out different colored paints and paintbrushes to different workspaces. Give one folded piece of white construction paper to each student. Remind the students to share the paint colors with their classmates, and to use one brush for one color—no mixing colors.

Show the students an example art project. Instruct the students to paint a picture or design on one half of the paper only. Remind them to paint quickly so the paint doesn’t dry. Encourage them to talk to each other about their art as they work. After they’re satisfied with their painting, help each student fold their piece along the pre-folded crease.

Have the students press down on their folded art to transfer the wet paint to the other side. After they’ve pressed all over the paper, help the students to unfold their papers. Hang them up or set them out to dry.

Extension

Explain to the students that even some letters are symmetrical. Ask them to name capital letters that are symmetrical. Write each one they suggest on the board and draw a line down the middle. Ask the students to confirm or deny that the capital letter is symmetrical by comparing the sides of the letter on either side of the line.

Sources

John Charles Ohran, *Four*, 1997
Joseph Shepherd Wixom, *Self-Portrait*