

Getting Into Shapes: Identifying and Describing Two-Dimensional Shapes



Grades 1–2

Using AIT Products

- *Mathematics Is Elementary*, program 8, “What Shape Is It In?—Geometry and Spatial Sense”
- *Soda Shapes*

Overview

If you look around you, you will see many examples of shapes. This lesson is designed to help students see how circles, triangles, rectangles, and squares are parts of things they see every day. Students will explore their surrounding area and look for examples of shapes. They will then create their own book about shapes. Students will also discover how shapes can be used to create pictures. Students will practice identifying, comparing, and sorting shapes while creating a picture with cut-out shapes.



There are universal shapes to which everyone is subconsciously conditioned and to which they can respond if their conscious control does not shut them off.

—Henry Moore

Objectives

- Identify two-dimensional shapes.
- Draw and describe two-dimensional shapes.
- Organize shapes and colors in an original visual image.

Vocabulary

attribute	shape
circle	side
corner	square
rectangle	triangle

Preparation

Materials Needed

- AIT video *Mathematics Is Elementary*, program 8, “What Shape Is It In?—Geometry and Spatial Sense” (first 3 minutes)
- *Shapes, Shapes, Shapes*, by Tana Hoban
- Cameras, enough for each group to have one
- Glue
- Stapler
- Overhead projector
- Overhead pieces in the shapes of rectangles, squares, triangles, and circles
- AIT video *Soda Shapes* (choose two episodes)



I found I could say things
with color and shapes that
I couldn't say any other
way—things I had no
words for.

—Georgia O’Keeffe

- Construction paper shape cut-outs (enough for each student to have an adequate selection)
- Pencils
- Construction paper
- Optional: *The Greedy Triangle*, by Marilyn Burns

Planning Notes

During the first day, students should work in groups to complete the activity. Groups of three to five are best.

Time

This project will take two class periods.

Procedure—Day 1

Introduce Topic

Quickly assess students’ knowledge of shapes by having them explain what a shape is. Ask students to name some shapes, and create a list on the board. Once students can no longer name any shapes, have them look at the list. Then ask student volunteers to describe each shape listed. Encourage students to identify the attributes for each shape. For example, have them identify the number of sides and corners of each shape.

Pre-Viewing Activity

Explain to students that if you look closely at objects in the surrounding environment, you can see many examples of shapes. For example, a sheet of paper is the shape of a rectangle. Have students identify several examples of shapes in the classroom.

Video

Tell students that they will see a video that shows several different neighborhoods. During the video students should write down the names

of shapes they see. Cue program 8 from the series *Mathematics Is Elementary* to approximate time code 01:07 and show students the visual geometry walk.

After the video, allow students to describe the shapes they saw in the video. Discuss the common attributes of the shapes, such as the number of sides and corners.

Group Work

Read *Shapes, Shapes, Shapes*, by Tana Hoban, aloud to students. As you look through the book, have students identify the shapes and describe their attributes.

Divide students into groups. Give each group a camera, and have students take pictures of shapes. Make copies of the pictures and have students use these pictures to create their own book about shapes.

Invite groups to share their books with others.

Procedure—Day 2

Introduce New Topic

Explain to students that artists often combine shapes to create a picture. On the overhead projector, use overhead pieces of shapes to model making a picture. Ask students to count how many triangles, squares, rectangles, and circles you used. Then have students think about what kind of picture they could make with the same shapes.

Video

Show students cut-outs of squares, triangles, rectangles, and circles, and have them brainstorm what types of pictures could be made with the shapes.

Have students watch two episodes of *Soda Shapes*. As they watch each episode, have them record which shapes were used.

Post-Viewing Activity

Tell students they will make their own pictures out of shapes. Have students select 10 to 15 different cut-out shapes. Instruct students to create their pictures by gluing the shapes on a large sheet of construction paper.

Have students record the number of each shape they used at the bottom of their picture

Extension Activity

Read *The Greedy Triangle*, by Marilyn Burns, aloud to students. Have students write their own story about a shape. Or, complete one of the suggested activities listed at the end of the book.

Assessment

Show students pictures of a square, rectangle, triangle, and circle. Point to each shape and have students name the shape and describe the attributes. Ask students to describe the difference between a square, circle, triangle, and rectangle.

Resources

Science Museum of Minnesota—Shapes Cluster

www.smm.org/sln/tf/nav/shapescluster.html

This Web site contains books, activities, and experiments about shapes. This site also includes cross-curricular activities about shapes.

NCTM Illuminations—Patch Tool

illuminations.nctm.org/ActivityDetail.aspx?ID=27

Have students explore shapes while using this online tool to create a pattern for a quilt square.

Buzzing with Shapes

www.harcourtschool.com/activity/buzz/buzz.html

Provide students with the opportunity to identify attributes of two-dimensional shapes by having them play this online, interactive activity.