

Lesson 1: Ways to Look at Figures

Standards Alignments

Addressing 4.G.A.1, 4.G.A.2

Building Towards 4.G.A.2

Teacher-facing Learning Goals

- Analyze the attributes of two-dimensional shapes and categorize the shapes in a way that makes sense to them.

Student-facing Learning Goals

- Let's sort two-dimensional figures.

Lesson Purpose

The purpose of this lesson is for students to analyze two-dimensional figures and sort them into different categories based on their attributes.

In grades 2 and 3, students studied some attributes of two-dimensional figures. In a previous unit, they investigated lines, rays, and segments, and drew and measured angles. They learned what it means when two lines or segments are parallel and perpendicular.

In this lesson, students use these understandings to examine attributes of two-dimensional shapes and sort the shapes into categories. As long as students can explain their rationale, they may choose to categorize the shapes using any attribute or combination of attributes—for instance, by the number of sides or angles, measurement of sides or angles, presence of parallel or perpendicular lines, and so on. Although each activity is designed to be open-ended, monitor for students who look for ways to describe or sort their shapes based on the presence or absence of angles of a specified size (right, obtuse, acute), parallel sides, or perpendicular sides. These attributes will be explored more in upcoming lessons.

This unit will continue to introduce new vocabulary to students. They should be encouraged to add to their portable word walls throughout the unit to support successful acquisition of geometry terms.

Access for:

Students with Disabilities

- Engagement (Activity 1)

Instructional Routines

MLR2 Collect and Display (Activity 1), Which One Doesn't Belong? (Warm-up)

Materials to Gather

- Protractors: Activity 1
- Rulers: Activity 1
- Sticky notes: Activity 1

Materials to Copy

- Shape Cards Grade 4 (groups of 2): Activity 1

Required Preparation

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

Students learned about angle measurement and parallel lines in an earlier unit. In what ways did you see and hear students building on those ideas when they described and sorted the shapes in this lesson?

Cool-down (to be completed at the end of the lesson)

 5 min

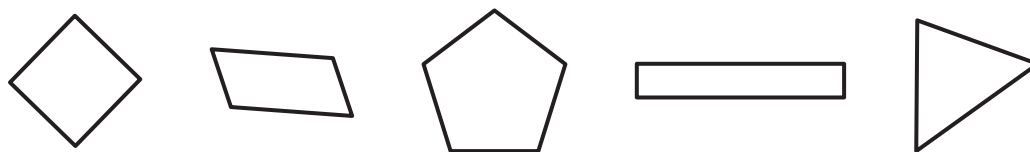
What Do They Have in Common?

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Building Towards 4.G.A.2

Student-facing Task Statement

Here are five shapes that have some attributes in common.



Select **all** statements that are true about the attributes they share.

- Every shape has at least two sides that are the same length.
- Every shape has at least one right angle.

- C. Every shape has at least one pair of parallel sides.
- D. Every shape has sides of different lengths.
- E. Every shape has at least two angles that are the same size.

Student Responses

A and E