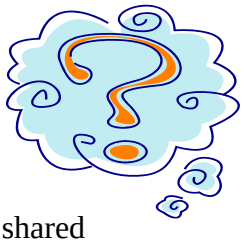
SCAFFOLDING TASK: SHOW WHAT YOU KNOW!



STANDARDS FOR MATHEMATICAL CONTENT

MCC3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

STANDARDS FOR MATHEMATICAL PRACTICES

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.

BACKGROUND

Students should have had experience with identifying two-dimensional shapes (no matter the position, orientation, or size) and begin to use the properties of the shapes to further develop understanding of shapes. These properties can include number of sides, number of corners (vertices), and may have included the length of the sides. Two-dimensional shapes include triangles, quadrilaterals (square, rectangle, and trapezoids), circles, pentagons, and hexagons. In third grade, students will further develop their understanding of two-dimensional shapes by looking at the different categories and the attributes that shapes might share.

ESSENTIAL QUESTIONS

- Why do we study shapes?
- How do the attributes help us identify the different shapes?
- What are some different ways to identify shapes?
- What is the different between an attribute and a property of a shape?

MATERIALS

- Student Copy of “Show What You Know” Recording Sheet

GROUPING

Individual Activity

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

Teacher Directions: Students will use the recording sheet to show their current understanding of two-dimensional/plane shapes. This activity could be used as a formative assessment throughout this unit to show what students know at the beginning of the unit, during the unit, and at the end of the unit. If there is room to reuse the same sheet, have students changed the color of their writing utensil to show growth, or have students draw a line under the information after each assessment. This activity will also help you guide students in their development of their Geometric Thinking based on the van Hiele levels. More on the topic can be read in the Van de Walle 3-5 resource book on pages 206 - 208

FORMATIVE ASSESSMENT QUESTIONS

The Recording Sheet is a graphic organizer that can help you understand what students know about two-dimensional shapes. Other formative assessment questions might include:

- What are some differences between the shapes listed?
- Are any of the shapes alike?
- Can you give me an example of a (name a shape?) What about a non-example?
- Are all of these shapes the same?
- What if _____
  _____
  _____?

  Example: What if I added another side? What if this shape looked like

   , or ?

  Is it still a trapezoid

DIFFERENTATION

Extension

Students that need an extension with this activity might be able to use vocabulary to describe the sides and vertices of the different shapes. They might also be able to see that some of the shapes belong together in the same class and may be able to describe the properties of the shapes that belong in the same class.

Intervention

Students that struggle with this activity may not know different ways in which shapes can be described (attributes, properties) and only know a shape based on its appearance. Teachers may want to create an anchor chart with terms used in discussion so that students who struggle can refer to the anchor chart. Examples of these words might be: sides, corners/vertices, polygon, congruent, angle. Students should help produce the anchor chart.

TECHNOLOGY CONNECTIONS

- http://www.harcourtschool.com/activity/buzz/buzz.html

Name _____ **Date** _____

Plane Shapes

Use the space below to write, draw, or describe what you know about the shapes.

Rectangle	Square	Rhombus
Triangle	Trapezoid	Quadrilaterals
Pentagon	Hexagon	Circle