PERFORMANCE TASK: Circus Trip

Approximately 1 day

STANDARDS FOR MATHEMATICAL CONTENT

MCC1.G.1 Distinguish between defining attributes (e.g., triangles are **closed** and **three-sided**) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.

STANDARDS FOR MATHEMATICAL PRACTICE

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.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

BACKGROUND KNOWLEDGE

The problem solving steps should be modeled or established in the classroom prior to this task. Students should be familiar with shapes and their attributes. This task is designed to serve as a pre-assessment of student knowledge of shapes and their attributes.

ESSENTIAL QUESTIONS

- What can I do with shapes?
- How do organize shapes?

MATERIALS

- Circus Trip task sheet
- Crayons, markers, etc.

GROUPING

- Individual

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

Part I

Gather students in a common area. Tell them you were cleaning out your room and you found five different boxes in the corner. You wanted to put them on the shelf but could not figure out what order. Draw five different shapes on the board to represent the boxes. Ask students how you could put them in order to go on the shelf. Work through the problem together, using pictures and words.

Part II

Explain to students that the last time you visited the circus you noticed many shapes. Discuss the shapes that you saw. For example, "I saw a circle with the seals. The circle was a ring around the stage. I saw a rectangle in the lion's cage. The rectangle was a bed they were lying on." Show the students the activity page. Tell them these are the shapes you saw. Tell them to look at the shapes and think about them. Ask, "How are they alike?" "How are they different?" "How could I put these shapes in some order?" Have the students go back to their seats and independently figure out how to put the shapes in order. Tell the students they can use pictures and/or words to explain how they answer.

FORMATIVE ASSESSMENT QUESTIONS

- How are the shapes alike and different?
- How are you going to organize your shapes? Tell me more.
- Could you order them a different way?

DIFFERENTIATION

Extension

- "Shape Sorts" (Van de Walle, Activity 7.1, page 194) Students will work in pairs or groups with a set of 2-D shapes. They will take a few shapes from the set and compare and sort them. Each person or team has to describe the rule they used to sort the shapes.

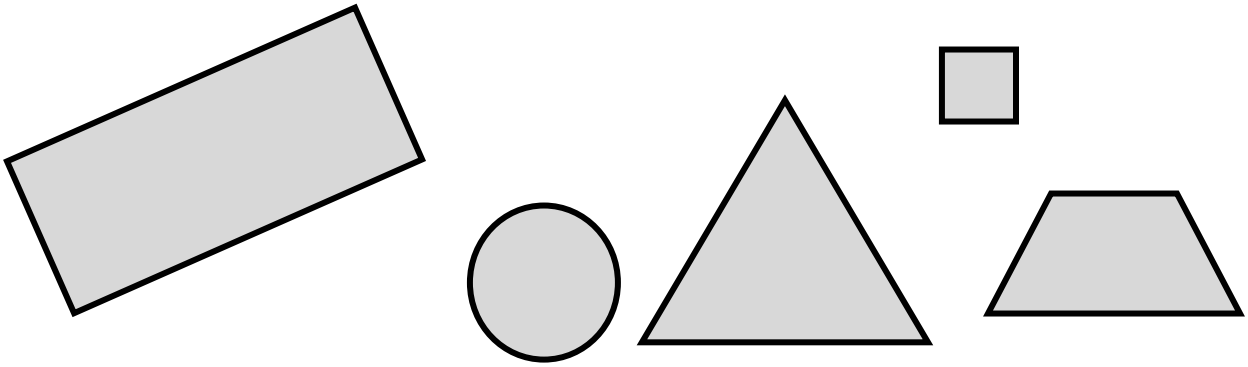
Intervention

- Provide shapes for the students to hold and sort.

Name:_____ **Date:**_____

Circus Trip

On a trip to the Circus, I spotted the items below. How are the items alike? How are these items different? How could I put them in order?



Show your mathematical thinking.