SHAPE, COLOR AND SIZE *(MODIFIED FOR ADEED)*

Science Concept:

Items can be sorted by color, shape, and size.

Objectives:

The student will:

- classify objects by shape, color, and size; and
- identify the way in which objects are classified by one attribute.

GLEs Addressed:

Science

[3] SB1.1 The student demonstrates an understanding of the structure and properties of matter by classifying matter according to physical properties (i.e., color, size, shape, weight, texture, flexibility).

[3] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.

Writing

[K] W1.1.1 The student writes about a topic by writing to express personal ideas using drawings, symbols, letters, or words.

Vocabulary:

attribute - a quality belonging to a particular person or thing

sort - to separate and arrange by kind or class

Materials:

- Attribute blocks
- Pocket chart
- Paper shapes:
  - large red, orange, and green triangles
  - large red, orange, and green circles
  - large red, orange, and green squares
  - small red, orange, and green triangles
  - small red, orange, and green circles
  - small red, orange, and green squares

Activity Preparation:

Several days before this lesson, send a request to parents to help their child choose an object and discuss its shape, size, and color. The student should bring the object to school on or before the day of the lesson. Have extra objects available for students who have not completed this task.

Teacher's Note: This lesson may be separated into various days to aid student understanding.

Activity Procedure:

Gear Up

Process Skills: observing, classifying, communicating

1. Play the game "I Spy" using students in the classroom. Use the attributes of shape, color, and size in the descriptions of students. For example, "I spy a girl with long, black hair, wearing a pink shirt and

purple polka-dot pants." Ask students what kinds of things they use to describe each other; put the focus on shape, color, and size.

2. Pass out several attribute blocks and allow students a few minutes of free play with the blocks.
3. After students have had a chance to explore the blocks, ask each student to pick up a block and describe the block by its size, shape, and color.
4. Collect the blocks and begin sorting the shapes into the pocket chart by size. Do not tell students how you are sorting the shapes; invite them to guess. Continue sorting by shape. Next sort by color, exaggerating your need to feel and look at the shapes to decide where they should go.
5. Allow and encourage student input and discussion, or allow students to assist.

Explore

Process Skills: communicating, classifying, observing

6. Separate students into four groups. Ask students to take out the objects they brought from home (see Activity Procedure), or distribute objects to students.
7. Ask each group to sort their objects by one attribute: shape, size, or color.
8. Instruct students to leave these objects at their table and rotate to another group's table to observe the other sorted objects.

Generalize

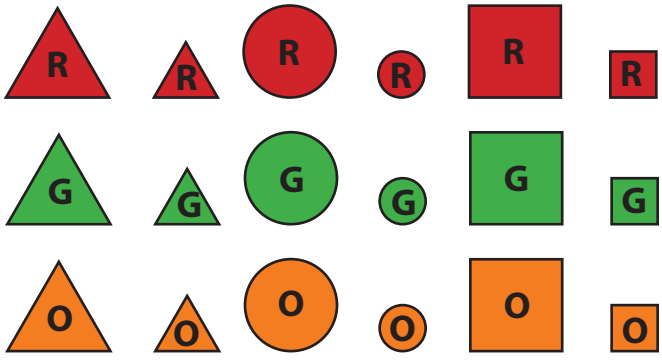
Process Skills: communicating, classifying, observing

9. Invite each group to tell the class by which attribute their objects were sorted.
10. Ask the groups what other ways they could sort and classify their objects.
11. Ask the class how they sort things in life. How are some things sorted in the classroom?

Apply/Assess

Process Skills: communicating, classifying, observing

12. Seat students in a circle on the floor.
13. Set up a matrix on the floor in the middle of the circle with the following large and small shapes: triangles, circles, and squares. The shapes will be red (R), green (G), and orange (O). The matrix will look like this:



14. Ask students what they notice about the matrix. Allow time for student responses.
15. Point to a shape in the matrix, and ask a student to describe it using all three attributes: size, shape, and color.
16. Tell students that while their eyes are closed you are going to remove a shape; when they open their eyes, you will ask them to describe the three attributes of the missing shape.
17. Ask students to close their eyes; remove a shape.
18. Ask students to open their eyes. Ask one student to tell you three attributes about the missing shape. For example: small, green, and triangle.
19. Continue around the circle until each student has had one turn.

20. Ask students to explain what they just did with the matrix. The description should include that they sorted by three attributes. Students may need an adult or older student to write for them.

Extension Ideas:

Process Skills: communicating, classifying, observing

1. Place six hula-hoops in the middle of the floor or outside on the grass and place a shape picture card for each of the geometric shapes (circle, diamonds, squares, ovals, triangles, and rectangles) in the center of the hoops.
2. In two boxes, place enough paper shapes so that each child can have two or three opportunities to draw a shape. Each box should have the same amount of shapes.
3. Set the boxes so they mark the beginning of the two relay lines.
4. Explain students will be playing a sorting game and racing to see which side can sort their shapes faster.
5. Divide the class into two lines.
6. Model for the students how to draw a shape, place it in the correct hoop, and go to the back of the line. Also model the incorrect way by placing a shape in the wrong shape hoop. Ask students to tell you what you did wrong and correct it.
7. Play a practice game. Remind students to draw a shape and not be concerned with which shape it is.
8. Begin the game and monitor the students to see if they are putting their shapes in the correct hoops.
9. Allow two or three rotations to the relay.
10. The relay can also be played with other attributes, such as size and color.

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RUBRIC

Objective	GLE	Emergent	Developing	Proficient	Advanced
The student writes the way in which objects are classified by one attribute.	[3] SB1.1 [K] W1.1.1	The student does identify in writing how objects are sorted.	The student identifies in writing how objects are sorted by one of the three attributes: shape, color, or size.	The student identifies in writing how objects are sorted by two of the three attributes: shape, color, or size.	The student identifies in writing how objects are sorted by all three attributes: shape, color, and size.
The student sorts objects by one attribute.	[3] SA1.1	The student does not sort objects.	The student sorts objects by one of the three attributes: shape, color, or size.	The student sorts objects by two of the three attributes: shape, color, or size.	The student sorts objects by all three attributes: shape, color, and size.