

Shapes

Reporting Category Geometry

Topic Identifying geometric shapes in the environment

Primary SOL 1.13 The student will construct, model, and describe objects in the environment as geometric shapes (triangle, rectangle, square, and circle) and explain the reasonableness of each choice.

Materials

- Modeling clay or dough
- Waxed paper
- Newspapers, magazines
- Scissors
- Baggies or envelopes
- Digital camera
- Chart paper
- 12 x 18 inch white construction paper
- Glue
- Metal rings
- Poster board or mat board

Vocabulary

triangle, rectangle, square, circle, reasonableness

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

1. Review critical attributes of triangles, rectangles, squares, and circles. Include examples of right triangles, isosceles triangles, scalene acute triangles, and obtuse triangles. Focus on the square corners in rectangles, and emphasize that a square is a special type of rectangle.
2. Distribute sheets of waxed paper to be placed on student desks and balls of modeling clay or dough. Direct students to create each of the four shapes (triangle, rectangle, square, and circle). Ask students to describe the attributes of each shape after it has been constructed.
3. Distribute newspapers and/or magazines from which to cut out pictures of objects shaped like triangles, rectangles, squares, and circles. Have students save their pictures in a baggie or envelope.
4. Go on a shape hunt around the classroom, school building, and/or outdoors, searching for various natural shapes found in the environment. Photograph the shapes as students identify them. Print out the photographs. Then, group students into four cooperative groups, and assign each group a different shape. Have the students in each group describe on a sheet of chart paper the attributes of their shape. Instruct each group to select the pictures of their shape from the set of all pictures taken and to glue them to sheets of white construction paper, which they label with the name of the shape. Each group should produce two or three pages. Students might also add their own labeled drawings. When

groups are finished, direct students to share their project pages with the class, paying special attention to the attributes of each shape.

5. Combine the groups' pages into a large class book, using metal rings. The pages may be laminated first for durability. Allow students to make covers for the book, using poster board or mat board, and to illustrate/decorate the front cover, using more pictures and drawings of all four shapes.
6. Provide students with time to reflect upon their learning by making a math journal entry.

Assessment

- **Questions**
 - "Look around the room. What objects can you see that are shaped like triangles, rectangles, and circles?"
 - "What are three different objects shaped like squares in our classroom? How do you know they are squares?"
- **Journal/Writing Prompts**
 - "Draw two different shapes, and describe at least two attributes of each shape."
 - "Write a riddle describing a shape. We will share our riddles with the class."
- **Other**
 - Provide students with pictures from magazines depicting shapes found in our environment. Have students use highlighters to trace around the shapes they find.

Extensions and Connections (for all students)

- Provide modeling clay or dough in the art center for students to practice modeling shapes. Cookie cutters may be used, if desired.
- Place several books about shapes in a tub or basket in your math center. Have students read a story (or listen to a tape of the story) and then draw and/or write in their math journals about the shapes in the story.

Strategies for Differentiation

- Provide outlined shapes for students to cover with yarn to help them differentiate among the shapes.
- Use a black marker to outline a shape on paper. Cover the shape with waxed paper so students may have support in forming shapes with dough or clay.
- Include on your class word wall the names of the shapes with pictures of the shapes identified in the environment.