What Shape Am I?

Summary

Students will analyze characteristics of geometric shapes.

Main Core Tie

Mathematics Grade 1 Strand: GEOMETRY (1.G.) Standard 1.G.1

Additional Core Ties

Mathematics Grade 1 Strand: GEOMETRY (1.G.) Standard 1.G.2

Materials

- <u>Shape Poems and Songs</u> (pdf) Attribute blocks or paper models of shapes
- <u>Same and Different worksheet</u> (pdf) worksheet

Additional Resources

- The Shape of Things
 - , by Dayle Ann Dodds; ISBN 0-439-13666-0
- Pattern Block City!
 - , by the Editors of Planet Dexter (Scholastic); ISBN 0-590-97223-5
- Circus Shapes
 - , by Stuart J. Murphy; ISBN 0064467139
- The Greedy Triangle , by Marilyn Burns; ISBN 0590489917
- Cat Show
 - , by Jayne Harvey; ISBN 044843112-2

Background for Teachers

Students will analyze characteristics of geometric shapes. Students need to know the defining attributes (and other attributes that are consequences of the definitions) of a circle, square, triangle and rectangle prior to this lesson.

Polygon—A closed plane figure made by line segments

Circle—A closed curve with all its points in one plane and the same distance from a fixed point. *Triangle*—A polygon with three sides (additional attributes: three angles/corners).

Square—A quadrilateral (four-sided polygon) with four congruent sides and four right angles.

Rectangle—A quadrilateral with two pair of congruent parallel sides and four right angles (additional attributes: two pair of parallel sides, two pair of congruent sides).

Note: A rectangle does not necessarily have two short and two long sides! A square is a special rectangle!

Students need to experience the shapes by touching, seeing, and discussing the number of sides and/or corners of each with peers or the whole class. Students should be given many opportunities to find shapes in their environment. Last, using definitions from class, students find an object in their environment and communicate why it is like the shape of their choice and not like another shape.

Intended Learning Outcomes

5. Understand and use basic concepts and skills.

6. Communicate clearly in oral, artistic, written and nonverbal form.

Instructional Procedures

Invitation to Learn

I Spy

I spy something that is large and has four sides and four corners. This object can be used to write on or hang pictures on. What is it? (chalkboard)

I spy something that has no sides and no corners but it does have hands. What is it? (clock) Instructional Procedures

Teach one of the shape songs.

Have students choose a shape and identify it by describing its attributes.

Individually or with a partner, students will walk around the classroom or school (if appropriate) and compare their given shape to an object in their surrounding.

Students will place the shape on top of an object to make sure they match. They can leave it taped to the object if in own classroom.

Using the *Same and Different* worksheet, students will draw a picture of the object chosen to represent their shapes. Next they will write or fill in the blanks as to how it is the same and how it is different from another shape.

Extensions

Listening Activity: Have children:

Color the circle red

Color the triangle blue

Color the square orange

Color the rectangle yellow

Name objects that look like these shapes

Critical Thinking Skills: Can you think of an object that has more than one shape?

Shape Riddles: Let your imagination go!

I have no corners.

I have no sides.

What am I?

I have three sides.

I have three corners.

What am I?

Family Connections

Students should explain the definition of each shape to a parent or family member. Then challenge that family member to find a shape around the house to compare. Tell why it is alike and why it is different from another shape. The student should be the "teacher" and check to see if their family member is correct.

Student could draw a picture of the item and write a simple sentence explaining what shape was used (e.g., "The door is like a rectangle. It has four sides and four corners. It is not like a triangle because it has more than three sides and three corners.").

Assessment Plan

Observe students as they describe their shapes.

Use student work page.

Pull small groups aside and hold up a shape and have them name.

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