

Subject area: Math
Grade level: 1st
Unit name: Geometry – by Ashby Morell

Unit goals:

GLE 0106.4.1 Recognize, describe, and draw geometric figures.

GLE 0106.4.2 Compose and decompose geometric shapes.

Introductory procedures:

Make and wear a t-shirt with different shapes for Day 1 of the lesson. If students ask about your shirt, tell them they will learn more about it in math class.

Day 1:

Tell students they are going to be learning about 4 basic shapes like those on your shirt. Inform students that they will have the opportunity to make a “shape shirt” during this math unit.

Give pretest.

Read and discuss Bear in a Square by Stella Blackstone.

Do the Geometric Shapes Power Point Presentation.

Have students do “Shape Match” worksheet.

Day 2:

Read and discuss Shapes, Shapes, Shapes by Tana Hoban. Discuss and illustrate all the pattern block shapes not yet covered (hexagon, trapezoid, and rhombus). Have students find examples of the shapes within the classroom.

Pass out pattern blocks. Have students sort them by shape and name each shape. Let students practice making a design with 12 blocks, then remove one block at a time to deconstruct their shape, forming new designs. Next have students make various items with pattern blocks such as a window, person, house, car, etc.

Have students go to the website: http://www.arcytech.org/java/patterns/patterns_j.shtml and build shapes online with pattern blocks.

Day 3:

Read and discuss Three Pigs, One Wolf and Seven Magic Shapes by Grace Maccarone.

Review the names of each pattern block shape.

Give each student a clean white t-shirt. Set up a paint station (using acrylic paint). Use the same colors as the pattern blocks (squares –orange, hexagons – yellow, etc.) Pour paint into pie tins. Place each sponge shape in the corresponding paint color. Have students dip sponges in paint and apply to shirts to create their own designs on shirts.

For those students waiting for a turn, have them work with a partner using pattern blocks. Have one student make a design with pattern blocks, then the buddy has to make a copy of that design. Students can take turns doing this until a spot open up at the paint station.

Keep the t-shirts at school for students to wear for field trips, field day, special events, etc.

Day 4:

Have students create a design on top of plain white paper with pattern blocks. Then have students remove blocks one at a time, tracing the outline of each block as it is removed. When students finish, have them exchange drawings and recreate a buddy's design using pattern blocks.

Using premade patterns have students build designs with pattern blocks. If the teacher needs premade pattern block designs, go to the website http://abcteach.com/directory/basics/math/geometry/pattern_blocks/ and print out a small block pattern.

Give posttest.

Materials or media:

Pencils, scissors, white paper, glue, classroom set of pattern blocks, small sponges cut out in the shapes of all the pattern blocks, orange, red, yellow, blue, green, and tan acrylic paint, and a white t-shirt for every student

TV, computers with internet access

Websites:

http://abcteach.com/directory/basics/math/geometry/pattern_blocks/

http://www.arcytech.org/java/patterns/patterns_j.shtml

Books:

Bear in a Square by Stella Blackstone, Shapes, Shapes, Shapes by Tana Hoban, Three Pigs, One Wolf and Seven Magic Shapes by Grace Maccarone

Assessment and evaluation:

Give pretest before beginning unit. Give posttest at the completion of unit. For mastery, students should score 4/5 or higher.

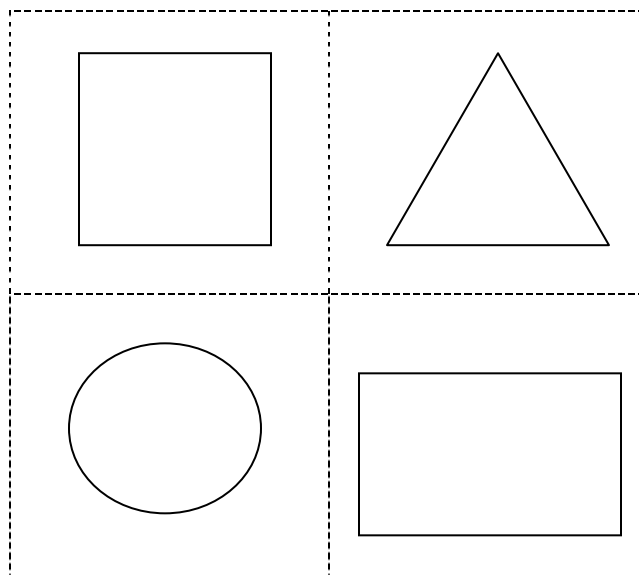
Name

Shape Match

circle		rectangle	
square		triangle	

Cut out each shape that matches the shape word and glue beside it.

Clip Art from Microsoft Office 2007



Teacher Directions for Pretest

Students can be provided with rulers or pattern blocks to trace while taking this test. Read all the following to students except what is in brackets.

1. **Draw a shape with no angles.** [students should draw a circle or oval]
2. **Draw a shape with 4 angles.** [students should draw a square or rectangle]
3. **Draw a different shape with 4 angles.** [students should draw a square or rectangle]
4. **Draw a shape with 3 angles.** [students should draw a triangle]
5. **This shape is a . . . square, triangle, rectangle.** [show the students a rectangle]

Teacher Directions for Posttest

Students can be provided with rulers or pattern blocks to trace while taking this test. Read all the following to students except what is in brackets.

1. **Draw 3 different shapes with 4 angles.** [student's drawings should include a square, rectangle, rhombus, and/or trapezoid]
2. **Draw a shape with 6 angles.** [students should draw a hexagon]
3. **Make a design using at least 3 different shapes.** [drawings will vary]

Name

Geometric Shapes Pretest

1. _____

2. _____

3. _____

4. _____

5. _____

Name

Geometric Shapes Posttest

1. _____, _____, _____

2. _____

3.

