

Differentiated Learning

Grade Level: Second

Topic: 12

Domain Covered:

Geometry

Clusters: (write out in words)

Reason with shapes and their attributes

Content Standards: (write out in words)

2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total of them.

2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths.

Recognize that equal shares of identical wholes need not have the same shape

Learning Targets for this Unit

*Found in teacher's manual under objectives for each topic lesson

- **Identify solid figures by their faces or flat surfaces, edges, and vertices.**
- **Identify the plane shapes that form the flat surfaces of solid figures.**
- **Identify and draw polygons (triangles, quadrilaterals, pentagons, and hexagons) and list their attributes.**
- **Recognize and name trapezoids, parallelograms, and hexagons, put shapes together to make new shapes, and identify the number of sides and vertices in each shapes.**
- **Cut shapes apart to make new shapes.**
- **Divide rectangles into equal squares and count how many squares are needed to completely partition the rectangle.**
- **Determine whether a shape has been divided into equal or unequal parts. If the parts are equal, children will count the number of parts.**
- **Use clues to solve riddles about plane shapes and solid figures.**

Practice Standards: (Delete the practices that will NOT be used)

- **Make sense of problems and persevere in solving them.**
- **Reason abstractly and quantitatively.**
- **Construct viable arguments and critique the reasoning of others.**
- **Model with mathematics.**
- **Use appropriate tools strategically.**
- **Attend to precision.**
- **Look for and make use of structure.**
- **Look for and express regularity in repeated reasoning**

Differentiated Activities

Directions: Use your Teacher Manual for your assigned Topic to complete this page and create student materials

Advanced/Gifted:

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Quick Synopsis of Activity & Materials Needed-

- **Encourage students to explore plane shapes with pattern blocks (hexagons, squares, trapezoids, parallelograms, triangles, and rhombuses)**

- Allow students to explore how shapes fit together to form larger shapes and how larger shapes are broken apart to form smaller shapes
- Investigate what happens when pattern block shapes are rotated or flipped

Math Project

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Quick Synopsis of Activity & Materials Needed-

Children search through magazines and newspaper ads for examples of cubes, prisms, cylinders, spheres, circles, rectangles, triangles, and squares. They will glue and label the pictures they find with the word bank labels to a piece of construction paper to make a “Shapes” poster. The posters can be displayed in the classroom.

Materials Needed:

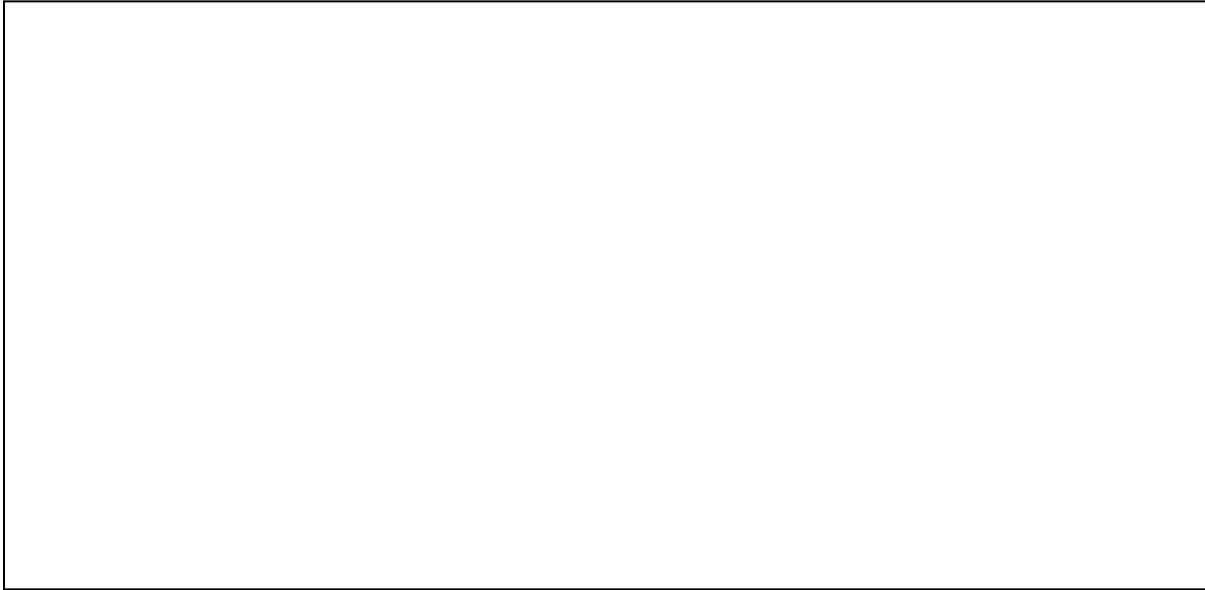
- Newspaper ads
- Magazines
- Construction paper
- Glue
- Scissors
- Word Bank Worksheet

Name: _____

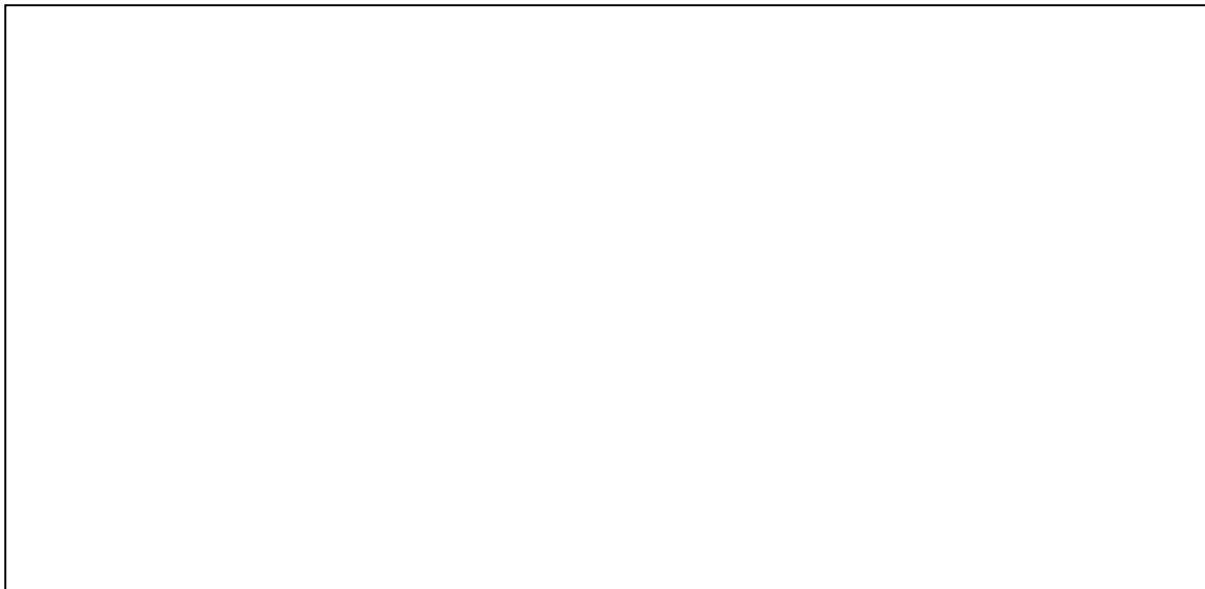
Date: _____

Topic 12 Math Project

Trace your pattern block shape below. Then, *flip* the pattern block left or right and trace again. Now try it again using different shapes.



Trace a pattern block shape below. Now *rotate* the shape left or right and trace it again. Now try it again with other shapes.



Cylinder

Prism

Cube

Sphere

Circle

Square

Triangle

Rectangle