Unit E - *Name It, Make It, Shape It, Break It, Build It , Move It and Compare It*

Overview

This unit will build upon the two-dimensional concepts students learned in first grade as they investigate two-dimensional shapes, fractions (halves and fourths), congruence and symmetry using a variety of tools and models. Students will identify, describe, construct, draw, compare, contrast, and sort various types of triangles and quadrilaterals, as well as other shapes.

21st Century Capacities: Analyzing, Presentation

Stage 1 - Desired Results

ESTABLISHED GOALS/ STANDARDS	Transfer:
MP 3 Construct viable arguments and critique the reasoning of others. MP 4 Model with mathematics MP 7 Look for and make use of structure. CCSS.MATH.CONTENT.2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. CCSS.MATH.CONTENT.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.[1] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	*Students will be able to independently use their learning in new situations to...* 1. Apply knowledge of composition and decomposition of shapes in our world to evaluate an object; (Analyzing) 2. Examine, identify, compare, and categorize shapes (Presentation)

	Meaning:	
	UNDERSTANDINGS: *Students will understand that:* 1. Shapes can be identified, described, compose/decomposed, categorized, and compared/contrasted by a variety of attributes 2. Some attributes help to define a shape while others do not	ESSENTIAL QUESTIONS: *Students will explore & address these recurring questions:* A. How does geometry help me understand the world around me? B. What are the attributes of this shape? How are they alike and different to another shape? C. How can shapes be divided into equal parts?

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

CCSS.MATH.CONTENT.2.G.A.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. | | |
| | **Acquisition:** | |
| | *Students will know…*

1. Sides and angles help to define a shape
2. How to determine area of a shape using a smaller shape
3. Equal parts of identical wholes do not have to be the same shape (for example a square can be split into two rectangles or two triangles)
4. Vocabulary: sides, angles, equilateral, congruent, symmetry, vertex | *Students will be skilled at…*

1. Recognizing congruence and symmetry
2. Identifying and naming triangles and quadrilaterals including: (squares, rectangles, trapezoids, & rhombuses), pentagons, and hexagons;
3. Locating 2D shapes in our environment;
4. Using pattern blocks to create composite shapes, solve puzzles, and practice drawing shapes;
5. Partitioning circles and rectangles into halves and fourths |