Math K (CC)

Math K (CC) Kindergarten | Mathematics | Common Core | 2014-2015

Tuesday, May 7, 2014, 6:08PM

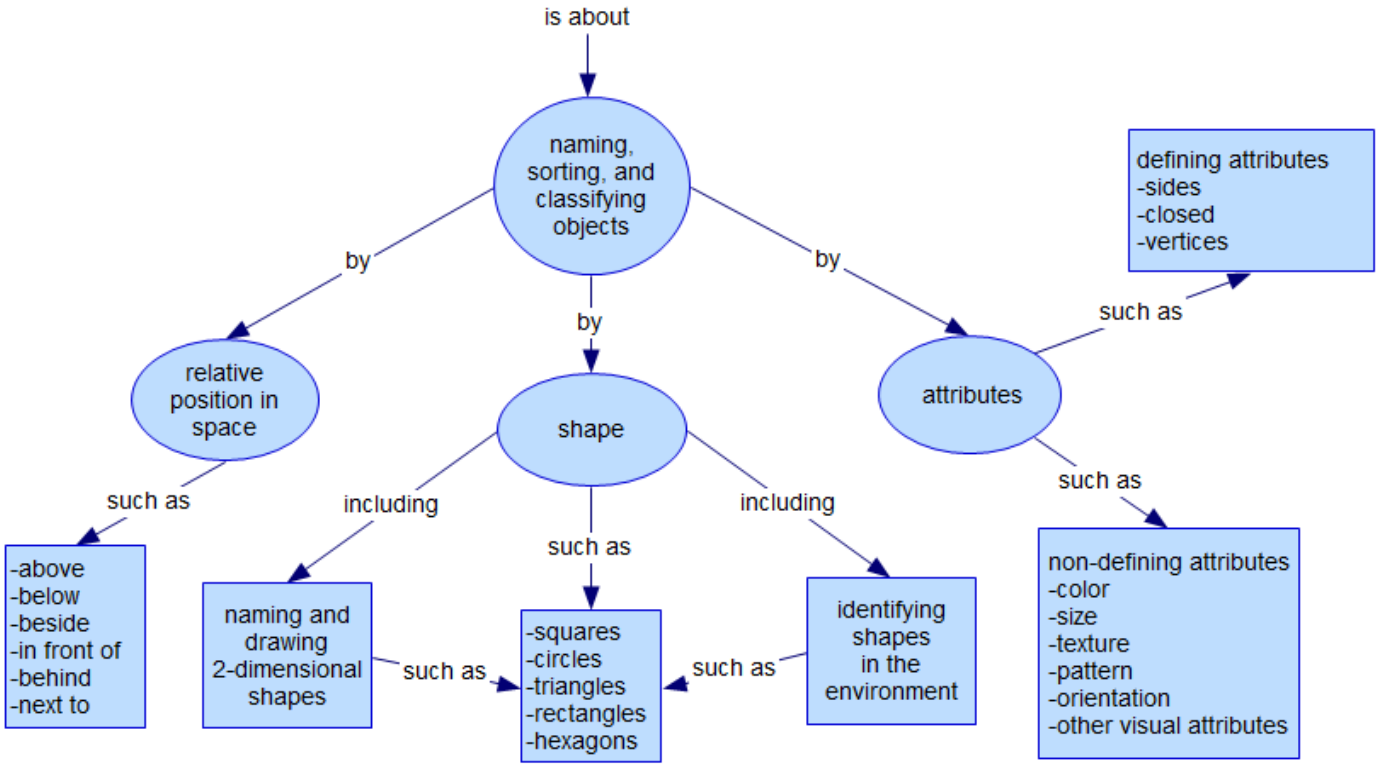
Unit: 1 - Exploring Attributes and Shape Part 1 (Week 1, 6 Weeks)

Common Core Initiative

Overarching Questions and Enduring Understandings

What role do shapes have in our world?

Graphic Organizer



Unit Abstract

In this unit, kindergarten students begin their formal study of geometry. They sort and classify objects to develop an understanding of their distinguishing attributes, including shape, color, size, pattern. They learn the names of 2-dimensional (flat) shapes (square, circle, triangle, rectangle, hexagon, trapezoid, rhombus), and to describe shapes by their defining attributes (sides, corners). Students move away from such informal language as looking at an inverted triangle and saying, "it looks like an ice cream cone" to more formal mathematical language, such as looking at an inverted triangle and saying "it's a triangle." They look for examples of geometric shapes in their environment.
To develop "spatial sense", students use positional words to describe the location of physical objects in the classroom or school (above, below, beside, in front of, behind, next to).

Unit Overview (Word)
Unit Overview (PDF)

Content Expectations/Standards	Unit Level Standards
Kindergarten, Measurement & Data **K.MD.B. Classify objects and count the number of objects in each category.** • K.MD.B.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. Limit category counts to be less than or equal to 10. **Kindergarten, Geometry** **K.G.A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).** • K.G.A.1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. • K.G.A.2. Correctly name shapes regardless of their orientations or overall size. **K.G.B. Analyze, compare, create, and compose shapes.** • K.G.B.6 Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"	***Please Note: The standards listed in this section have been modified to be appropriate for this unit. Text in gray font is part of the CCSS-M standard but does not apply to this unit. Text in brackets denotes a modification that has been made to the standard.*** **Kindergarten, Geometry** **K.G.B. Analyze, compare, create, and compose shapes.** • K.G.B.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length). • K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
Essential/Focus Questions	**Key Concepts**
1. What makes a square (circle, triangle, rectangle, hexagon) a square (circle,.....) 2. What shapes do we see in our environment? 3. How do we describe the position of objects relative to other objects? 4. What are some ways we can sort a group of objects?	above attributes behind below beside circles classify hexagons in front of next to rectangles relative positions sort squares triangles 2-dimensional
Assessment Tasks	**Intellectual Processes**
Assessment Overview Assessment Student Handout Professional Learning Task	**Standards in Mathematical Practice** ***Students will have opportunities to:*** • **construct viable arguments and critique the reasoning of others** when describing the attributes of a sorting rule or of geometric shapes found in the environment; • **look for and make use of structure** when sorting and classifying objects and identifying geometric shapes in the environment; and

	• **look for and express regularity in repeated reasoning** when recognizing that the name of the shape remains the same, regardless of its size and orientation.
Lesson Sequence Lesson Overview Triangle Orientation Poster Shape Sorting Mat Handout Demonstration Triangles Square Professional Learning Task	**Resources** Unit Resources Geoboard Dot Paper

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