Content Area: Mathematics
Standard: 4. Shape, Dimension, and Geometric Relationships

Prepared Graduates:
➢ Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics

Grade Level Expectation: Kindergarten

Concepts and skills students master:
1. Shapes can be described by characteristics and position and created by composing and decomposing

Evidence Outcomes	21st Century Skills and Readiness Competencies

Students can:
a. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). (CCSS: K.G)
  i. 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*. (CCSS: K.G.1)
  ii. Correctly name shapes regardless of their orientations or overall size. (CCSS: K.G.2)
  iii. Identify shapes as two-dimensional[1] or three dimensional.[2] (CCSS: K.G.3)
b. Analyze, compare, create, and compose shapes. (CCSS: K.G)
  i. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts[3] and other attributes.[4] (CCSS: K.G.4)
  ii. Model shapes in the world by building shapes from components[5] and drawing shapes. (CCSS: K.G.5)
  iii. Compose simple shapes to form larger shapes.[6] (CCSS: K.G.6)
	Inquiry Questions:
	1. What are the ways to describe where an object is?
	2. What are all the things you can think of that are round? What is the same about these things?
	3. How are these shapes alike and how are they different?
	4. Can you make one shape with other shapes?
	
	Relevance and Application:
	1. Shapes help people describe the world. For example, a box is a cube, the Sun looks like a circle, and the side of a dresser looks like a rectangle.
	2. People communicate where things are by their location in space using words like next to, below, or between.
	
	Nature of Mathematics:
	1. Geometry helps discriminate one characteristic from another.
	2. Geometry clarifies relationships between and among different objects.
	3. Mathematicians model with mathematics. (MP)
	4. Mathematicians look for and make use of structure. (MP)

Content Area: Mathematics
Standard: 4. Shape, Dimension, and Geometric Relationships

Prepared Graduates:
➢ Understand quantity through estimation, precision, order of magnitude, and comparison. The reasonableness of answers relies on the ability to judge appropriateness, compare, estimate, and analyze error

Grade Level Expectation: Kindergarten

Concepts and skills students master:
2. Measurement is used to compare and order objects

Evidence Outcomes	21st Century Skills and Readiness Competencies
Students can: a. Describe and compare measurable attributes. (CCSS: K.MD) i. Describe measurable attributes of objects, such as length or weight. (CCSS: K.MD.1) ii. Describe several measurable attributes of a single object. (CCSS: K.MD.1) iii. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.[1] (CCSS: K.MD.2) iv. Order several objects by length, height, weight, or price (PFL) b. Classify objects and count the number of objects in each category. (CCSS: K.MD) i. Classify objects into given categories. (CCSS: K.MD.3) ii. Count the numbers of objects in each category. (CCSS: K.MD.3) iii. Sort the categories by count. (CCSS: K.MD.3)	**Inquiry Questions:** 1. How can you tell when one thing is bigger than another? 2. How is height different from length? **Relevance and Application:** 1. Measurement helps to understand and describe the world such as in cooking, playing, or pretending. 2. People compare objects to communicate and collaborate with others. For example, we describe items like the long ski, the heavy book, the expensive toy. **Nature of Mathematics:** 1. A system of measurement provides a common language that everyone can use to communicate about objects. 2. Mathematicians use appropriate tools strategically. (MP) 3. Mathematicians attend to precision. (MP)

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Kindergarten

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[1] For example, directly compare the heights of two children and describe one child as taller/shorter. (CCSS: K.MD.2)

Content Area: Mathematics
Standard: 1. Number Sense, Properties, and Operations

Prepared Graduates:
➢ Understand the structure and properties of our number system. At their most basic level numbers are abstract symbols that represent real-world quantities

Grade Level Expectation: Kindergarten

Concepts and skills students master:
1. Whole numbers can be used to name, count, represent, and order quantity

Evidence Outcomes	21st Century Skills and Readiness Competencies

Students can:
a. Use number names and the count sequence. (CCSS: K.CC)
   i. Count to 100 by ones and by tens. (CCSS: K.CC.1)
   ii. Count forward beginning from a given number within the known sequence.[1] (CCSS: K.CC.2)
   iii. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20.[2] (CCSS: K.CC.3)
b. Count to determine the number of objects. (CCSS: K.CC)
   i. Apply the relationship between numbers and quantities and connect counting to cardinality.[3] (CCSS: K.CC.4)
   ii. Count and represent objects to 20.[4] (CCSS: K.CC.5)
c. Compare and instantly recognize numbers. (CCSS: K.CC)
   i. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group.[5] (CCSS: K.CC.6)
   ii. Compare two numbers between 1 and 10 presented as written numerals. (CCSS: K.CC.7)
   iii. Identify small groups of objects fewer than five without counting
	Inquiry Questions:
	1. Why do we count things?
	2. Is there a wrong way to count? Why?
	3. How do you know when you have more or less?
	4. What does it mean to be second and how is it different than two?
	
	Relevance and Application:
	1. Counting is used constantly in everyday life such as counting plates for the dinner table, people on a team, pets in the home, or trees in a yard.
	2. Numerals are used to represent quantities.
	3. People use numbers to communicate with others such as two more forks for the dinner table, one less sister than my friend, or six more dollars for a new toy.
	
	Nature of Mathematics:
	1. Mathematics involves visualization and representation of ideas.
	2. Numbers are used to count and order both real and imaginary objects.
	3. Mathematicians attend to precision. (MP)
	4. Mathematicians look for and make use of structure. (MP)