



PreK  
Mathematics  
2019-2020

**Counting and Cardinality**

**Understand numbers, ways of representing numbers, and relationships between number and quantities**

1. Verbally count by ones to 30
- 2a. Count forward from a given number between 1 and 10
- 2b. Count backward from 5
3. Understand that the last number named tells the number of objects counted for a set of 10 or fewer objects
4. Count out a specified number of objects from a set of 10 or fewer objects when asked
5. Identify written numerals 0-10 in the everyday environment
6. Match a number of objects with the correct written numeral from 0 – 10
7. Compare sets of objects using same/different and more/less/fewer
8. Identify "first" and "last" related to order or position

**Operations and Algebraic Thinking**

**Understand basic patterns, concepts, and operations**

- 1a. Recognize and copy a pattern
- 1b. Extend a pattern
- 2a. Sort objects by more than one attribute (*e.g., red circles or blue triangles*)
- 2b Explain the criteria used to sort objects
3. Use concrete objects to demonstrate simple addition and subtraction problems that total 6 or fewer
4. Model and act out story problems, physically or with objects, to solve whole number problems with sums less than or equal to 6

**Measurement and Data**

**Understands attributes and relative properties of objects as related to size, capacity, and area**

1. Describe measurable attributes (length and weight) of objects and materials, using comparative words
2. Put up to six objects in order by length (*seriate*)
3. Identify/name simple measurement tools and describe what they are used for (*e.g., ruler measures length, scale measures weight*)
4. Participate in measurement activities using standard measurement tools to measure the length and weight of objects and materials (*e.g., ruler, scale, measuring cup*)

**Geometry**

**Understand shapes, their properties, and how objects are related to one another in space**

1. Identify and name at least the four basic shapes (rectangles, squares, circles, and triangles) when presented using different sizes and in different orientations
2. Describe and name attributes of four basic shapes (*e.g., a square has four equal sides, a circle is round*)
3. Copy or replicate one or two dimensional shapes using a variety of materials
4. Combine (compose) or take apart (decompose) shapes to make other shape(s) (*e.g., put two triangles together to make a square, take two halves of a rectangle apart & recognize pieces are two other shapes*)
5. Use and understand positions of objects, self and other people in space (*e.g., in/on, over/under, up/down, inside/outside, beside/between, and in front/behind*)