



## ***Mathematics Arts State Standards Grade Kindergarten***

Kindergarten students gain a foundational understanding of numbers and place value. More learning time should be devoted to counting and numbers than any other topic in kindergarten. Students also identify and compare shapes and classify objects in categories. They learn how to solve problems, explain their math reasoning with objects and words, and recognize math in everyday life.

### ***Standards for Mathematical Practice – “HOW”***

#### ***My student can:***

- explain a math problem, create & use a plan to solve it, and check if the answer makes sense.
- make sense of and flexibly use math symbols, numbers, and operations.
- use objects, drawings, diagrams, actions and words to explain his/her approach to a math problem and decide if others' strategies make sense.
- recognize math in everyday life and use math to solve real problems.
- use tools (e.g., ruler, concrete models, paper/pencil) to solve problems and deepen understanding.
- calculate accurately, use precise math vocabulary, and explain problems/solutions clearly.
- see how numbers and shapes are organized as parts and wholes.
- notice when calculations are repeated, and look for general “rules” and shortcuts

### ***Math Content Standards – “WHAT” Numbers (Counting and Cardinality)***

#### ***My student can:***

- count to 100 by ones and tens. K.CC.1
- count forward starting at a given number (instead of having to begin at 1).
- K.CC.2
- write numbers from 0 to 20 and represent a number of objects with a written numeral 0-20. K.CC.3
- count objects in number order and pair each object with one and only number name. K.CC.4
- understand that the last object counted tells the number of objects in a group. K.CC.4

- understand that objects in a group can be rearranged and the total number will stay the same. K.CC.4
- understand that each successive number name refers to a quantity that is one larger. K.CC.4
- count to tell how many. K.CC.5
- count out a number of objects between 1 and 20. K.CC.5
- tell if the number of objects in one group is greater than, less than or equal to a group of objects in another group (e.g., by matching or counting). K.CC.6
- compare two written numbers between 1 and 10. K.CC.7

### ***Addition and Subtraction (Operations and Algebraic Thinking)***

#### ***My student can:***

- use objects, fingers, drawings, actions, words or equations to show addition. K.OA.1
- use objects, fingers, drawings, actions, words or equations to show subtraction. K.OA.1
- solve addition and subtraction word problems within 10 by using objects or drawings. K.OA.2
- take apart numbers less than or equal to 10 in more than one way (e.g.,  $5=2+3$  and  $5=4+1$ ). K.OA.3
- find the number that is added to 1 through 9 to make 10 by using objects or drawings. K.OA.4
- quickly and accurately add and subtract within 5. K.OA.5
- Number Sense and Place Value (Number and Operations in Base Ten) My student can: put together and take apart numbers 11 – 19 to show the ten ones plus additional ones. K.NBT.1
- use objects, drawings & equations to show numbers 11-19 as ten ones and additional ones. K.NBT.1

### ***Measurement and Data***

#### ***My student can:***

- describe characteristics of an object that can be measured (e.g., length, weight). K.MD.1
- compare/contrast two objects that can be measured in the same way (e.g., compare the heights of two children and describe one child as taller/shorter) . K.MD.2
- sort objects into categories and count the number of objects in each category. K.MD.3
- sort and compare categories by the number of objects in each. K.MD.3

### ***Geometry***

#### ***My student can:***

- identify shapes in his/her surroundings (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). K.G.1
- describe where shapes are located, using words like above, below, beside, behind. K.G.1
- correctly name shapes regardless of their size or position. K.G.2
- identify shapes as two-dimensional ("flat") or three-dimensional ("solid").
- K.G.3

- compare two-dimensional and three-dimensional shapes using informal language to describe their similarities, differences, parts (e.g., "corners") and other characteristics. K.G.4
- draw shapes and make shapes using materials like sticks and clay. K.G.5
- combine simple shapes to make larger shapes (e.g., joining two triangles to make a rectangle). K.G.6