# Mathematics (Kindergarten)

## Course Description:

The curriculum for this course is developed from the Common Core State Standards for Mathematics. In this course, instructional time will focus on two critical areas: (1) representing, relating, and operating on whole numbers, initially with sets of objects, and (2) describing shapes and space. More learning time in kindergarten should be devoted to number than to other topics.

## Mastery Standards:

Counting and Cardinality

- Count to 100 by ones and by tens. (K.CC.A.1)
- Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (K.CC.A.3)
- Understand the relationship between numbers and quantities; connect counting to cardinality. (K.CC.B.4)
- When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (K.CC.B.4.A)
- Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. (K.CC.B.4.B)
- Understand that each successive number name refers to a quantity that is one larger. (K.CC.B.4.C)
- Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects. (K.CC.B.5)

Operations and Algebraic Thinking

- Fluently add and subtract within 5. (K.OA.A.5)

Number and Operations in Base Ten

- Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. (K.NBT.A.1)

Geometry (K.G)

- 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.1)

| Unit | Description of Domain and Learning Targets |
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| **Unit Title: Counting and Cardinality**<br><br>Essential Questions:<br>• What patterns can be seen in our number sequence?<br>• What is the connection between numbers and quantity?<br>• How can you compare numbers and quantities? | Students will learn number names and the count sequence. They will count to tell the number of objects and compare numbers.<br><br>Learning Targets:<br>• I can count to 100 by 1's.<br>• I can count to 100 by 10's<br>• I can write numbers 0-20.<br>• I can count up to 20 objects in a variety of arrangements using 1-1 matching.<br>• I can compare groups of objects and numbers up to 10. |

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| **Unit Title: Operations and Algebraic Thinking**<br><br>Essential Questions:<br>● What is addition?<br>● What is subtraction?<br>● What does it mean for things to be equal? | Students will understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.<br><br>Learning Targets:<br>● I can fluently add and subtract within 5. |
| **Unit Title: Number and Operations in Base Ten**<br><br>Essential Questions:<br>● What is the same about the numbers 10-19?<br>● How are teen numbers different than the numbers 0-9? How are they similar to the numbers 0-9? | Students will work with numbers 11-19 to gain foundations for place value.<br><br>Learning Targets:<br>● I understand teen numbers as 10 + __ |
| **Unit Title: Geometry**<br><br>Essential Questions:<br>● How can we use words to describe the location of an object? | Students will identify, describe, analyze, compare, create, and compose shapes.<br><br>Learning Targets:<br>● I can use positional words (behind, under, above, etc.). |