

## Scope and Sequence: Kindergarten

### What Students Learn in Kindergarten Mathematics

The start of the school year focuses on the development of students’ understanding of how to count and what to count, a critical area of instruction in kindergarten. One of the first major concepts in a student’s mathematical development is cardinality. **Cardinality** means *knowing that the number word spoken tells the quantity and that the number on which a person ends when counting represents the entire amount counted*. Students learn that numbers mean **amount** and no matter how you arrange and rearrange the items, the amount is the same. During the first trimester, students will be actively engaged in lessons supporting one-to-one correspondence as they experience counting objects and sequencing numbers to 20. As the school year progresses, students move from counting by ones to 10 to counting by tens to 100. These early skills help to develop students’ ability to count on in a number sequence from a number other than 1, identify, compare and represent a quantity using both numerals and words, and understand the concept of “more” and “less.” As the year progresses, kindergarten students are expected to add, subtract and solve word problems within 10 and build fluency with addition and subtraction within 5. Students compose and decompose numbers 1-10 and later numbers 11-19 for place value understanding. Kindergarten students connect counting and ordering skills and understanding to help them classify objects into categories, count the numbers of objects in each category, and sort the categories by count. Kindergarten students then focus on to identify, describe, and compose with 2D shapes. Students then learn to describe the measurable attributes of objects and directly compare two objects by their attributes (more/less, taller/shorter). The year ends with students studying 3D shapes, understanding how they differ from flat shapes and composing complex shapes from basic solids.

Unit Titles		Grade K students...
<b>Tri 1</b>	Introductory Week	<p><b><u>Should master:</u></b></p> <ul style="list-style-type: none"> <li>• Counting to 100 by ones and tens</li> <li>• Writing numbers from 0-20</li> <li>• Counting, 1:1 correspondence</li> <li>• Decomposing numbers to 10</li> <li>• Fluently adding and subtracting within 5</li> </ul> <p><b><u>Work towards fluency in:</u></b></p> <ul style="list-style-type: none"> <li>• Place Value 11 to 19</li> <li>• Understanding addition and subtraction</li> <li>• Classifying objects into categories</li> </ul> <p><b><u>Are introduced to:</u></b></p> <ul style="list-style-type: none"> <li>• Addition and subtraction word problems</li> <li>• Measurable attributes, such as length or weight</li> <li>• 2D (flat) and 3D (solid) shapes</li> <li>• Comparing, creating, and composing shapes</li> </ul>
	Counting, Numerals, and Cardinality 0 to 10	
	Counting Strategies and Application of Numbers 0 to 100	
<b>Tri 2</b>	Addition and Subtraction within 10	
	Place Value 11-19	
<b>Tri 3</b>	Sorting and Classifying	
	Attributes and Measuring	
	Understanding 2D Shapes	
	Understanding 3D Shapes	