

# Kindergarten Key Concepts by LearnZillion Unit

Key Concepts for each unit can provide instructional guidance around the main focus for student learning and the depth of exploration and mastery toward a standard. The final focus for each standard is indicated with **black outline**. A **+** indicates the focus of this standard is isolated to a single unit.

Standards for Math Practice(MP.#) have been listed for each Key Concept. While the curriculum highlights opportunities to elevate these in learning, it is essential that these standards be embedded into student learning when they occur regardless of the few called out in this document. For more information on the Standards for Math Practice, please visit: [Illustrative Math](https://www.illustrativemathematics.org/)

A few questions teams have asked while using this document:

- Where does the standard occur before it is **finalized?**
- To what depth is the current unit calling for? (range of numbers, strategies, use of abstraction like equations, concept awareness and flexibility, etc.)
- What "I can" or "I know" statements would make the Key Concepts clear to my learning community?
- How does the standard progress over the year?

Key Concepts (Term 1)	Content Standards	Practice Standards
<b>Unit 1 - Rote counting and understanding amount counted</b>		
1. Numbers exist in a sequence that does not change, and can be counted.	K.CC.A.1	MP.6
2. Each item in a collection must be counted once and only once.	K.CC.B.4.a	MP.2, MP.6
3. The last number name used names the quantity of objects in the set.	K.CC.B.4.b	MP.2, MP.6
<b>Unit 2 - Rote counting and understanding amount counted</b>		
1. The last number name said tells the number of objects.	K.CC.B.4.b	MP.6
2. Any number of objects can be represented with a written numeral.	K.CC.A.3	MP.2
3. The number of objects is the same regardless of their arrangement or the order in which they were counted.	K.CC.B.4.b, K.CC.B.5	MP.3, MP.6
<b>Unit 3 - Classifying and counting objects</b>		
1. We can count to answer how many objects are arranged in a line or a rectangular array.	K.CC.B.5, K.MD.B.3	MP.1, MP.3
2. Objects can be sorted and counted to identify how many are in a category.	K.CC.B.5, K.MD.B.3	MP.1, MP.2, MP.3
3. Objects in our environment can be described using positional words (above, below, beside, etc.)	K.CC.B.5, K.MD.B.3, K.G.A.1	MP.1, MP.3
<b>Unit 4 - Understanding and representing addition within 5</b>		
1. Each successive number name refers to a quantity that is one greater.	<b>K.CC.B.4.c+</b>	MP.1
2. Addition can be understood as putting together.	<b>K.CC.B.4.c+</b> K.OA.A.1	MP.1, MP.4

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3. Addition can be understood as adding to.	K.CC.B.4.c+, K.OA.A.1	MP.1, MP.4
<b>Unit 5 - Identifying and describing shapes</b>		
1. Shapes have names that are based on their attributes, and three of these shapes are squares, circles, and triangles.	K.G.A.1, K.G.A.2+	MP.2, MP.7
2. The name of a shape is invariant with regard to its orientation or size.	K.G.A.2+	MP.3, MP.7
3. We can use various components to model shapes in the real world.	K.G.B.5	MP.2, MP.7
<b>Unit 6 - Adding and subtracting within 5</b>		
1. Subtraction can be understood as taking apart.	K.OA.A.1, K.OA.A.2	MP.1, MP.2, MP.4, MP.7
2. Subtraction can be understood as taking from.	K.OA.A.1, K.OA.A.3	MP.1, MP.2, MP.4, MP.8
3. The same number can be decomposed in more than one way.	K.OA.A.1, K.OA.A.2, K.OA.A.3	MP.1, MP.2, MP.4, MP.7, MP.8
<b>Unit 7 - Rote counting to 50 and representing up to 20 objects</b>		
1. The number sequence remains the same regardless of the starting number (up to 50 in this unit).	K.CC.A.1, K.CC.A.2	MP.2, MP.7
2. Any number (within 20) of objects can be represented with a written numeral.	K.CC.A.2, K.CC.A.3, K.CC.B.4.a	MP.2, MP.6
3. The number of objects arranged in a line, rectangular array, or circle is the same no matter how it is arranged.	K.CC.B.4.a, K.CC.B.4.b, K.CC.B.5	MP.2, MP.6
<b>Standards in Progress...</b>	<b>Standards Finalized (in Maintenance)</b>	<b>Standards Not Yet Taught</b>
<p><b>K.CC.A.1, K.CC.A.2, K.CC.A.3</b> - Students should be able to write numbers to 20 and rote count to 50 starting at any number.</p> <p><b>K.OA.A.1, K.OA.A.2, K.OA.A.3</b> - Student should conceptually understand the actions of subtraction as take apart and take from and addition as put together and add to. Students should represent these situations within 5 (using objects, fingers, drawings, etc) and understand that numbers within 5 can be decomposed in many ways.</p> <p><b>K.G.B.5</b>- Student should be able to model shapes with tools (sticks, clay, etc) and begin to draw them.</p>	<p>K.G.A.1, K.G.A.2 <b>K.CC.B.4.a,</b> <b>K.CC.B.4.b</b> K.CC.B.4.c, <b>K.CC.B.5</b> K.MD.B.3</p>	<p>K.CC.C.6 K.CC.C.7 K.OA.A.4 K.OA.A.5 K.NBT.A.1 K.MD.A.1 K.MD.A.2 K.G.B.6</p>
<b>Key Concepts (Term 2)</b>	<b>Content Standards</b>	<b>Practices Standards</b>

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Unit 8 - Describing and comparing measurable attributes		
1. A single object may have multiple attributes that are measurable.	K.MD.A.1+, K.MD.A.2+	MP. 1, MP.3, MP. 4, MP.5, MP.6, MP.8
2. Objects can be compared based on an attribute they share.	K.MD.A.1+, K.MD.A.2+, K.MD.B.3	MP.1, MP.3, MP.4, MP.5. MP.6
3. An object's' length remains the same regardless of its position relative to another object.	K.MD.A.1+, K.MD.A.2+	MP.1, MP.3, MP.5, MP.6, MP.8
Unit 9 - Comparing numbers		
1. Sets of objects can be compared using the language greater than, less than, or equal to.	K.CC.C.6+, K.CC.C.7+	MP.2, MP.6
2. Matching and counting strategies can be used to compare quantities (up to ten) of two groups.	K.CC.C.6+	MP.2
3. Written numerals can be compared using the language greater than, less than, or equal to.	K.CC.C.6+, K.CC.C.7+	MP.2, MP.6
Unit 10 - Understanding addition and subtraction within 10		
1. There is more than one pair of addends that can be combined to make a total.	K.OA.A.1, K.OA.A.2, K.OA.A.3	MP.4, MP.5, MP.6
2. A total can be taken apart into more than one pair of addends.	K.OA.A.1, K.OA.A.2, K.OA.A.3	MP.4, MP.5, MP.6
3. We can solve real-world addition and subtraction problems using objects or drawings.	K.OA.A.1, K.OA.A.2, K.OA.A.3	MP.4, MP.5, MP.6
Unit 11 - Classifying two- and three-dimensional shapes		
1. Geometric figures can be sorted and counted to identify how many are in a category.	K.MD.B.3	MP.3, MP.7
2. Two- and three- dimensional shapes can be identified and described as flat or solid.	K.G.A.3+, K.G.B.4+	MP.3, MP.7
3. Shapes can be analyzed and compared by their number of sides and "corners" (vertices) and other measurable attributes.	K.G.B.4+	MP.3, MP.7
Unit 12 - Composing ten		
1. For any number 1 to 9, there is one number we can add to it to get 10.	K.OA.A.4+	MP.7
2. Every number 1 to 9 has a partner such that the two numbers can be composed to make 10.	K.OA.A.4+	MP.7
3. The value of ten does not change regardless of how it is composed.	K.OA.A.4+	MP.8
Unit 13 - Counting to 100 by tens and ones		

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1. The number of objects in a collection is the same no matter how it is counted.	K.CC.A.1	MP.7, MP.8
2. We can count larger sets of objects by grouping, then counting by tens.	K.CC.A.1	MP.7, MP.8
3. The number sequence remains the same regardless of the starting number.	K.CC.A.1, K.CC.A.2	MP.7, MP.8
<b>Unit 14 - Developing foundations of place value</b>		
1. The numbers 11-19 are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	K.NBT.A.1+	MP.4, MP.7
2. The numbers 11-19 are the sum of 10 ones and 1, 2, 3, 4, 5, 6, 7, 8, or 9 ones.	K.NBT.A.1+	MP.4, MP.7
3. We can count on from 10 by 1, 2, 3, 4, 5, 6, 7, 8, or 9 to reach the numbers 11-19.	K.NBT.A.1+	MP.4, MP.7
<b>Unit 15 - Modeling and composing shapes</b>		
1. We can model shapes in the environment by building them from components (toothpicks, clay, etc.).	K.G.B.5	MP.4, MP.6
2. We can draw shapes to model shapes in the environment.	K.G.B.5	MP.4, MP.6
3. You can compose simple shapes to form larger shapes (two triangles can be joined full side to full side to form a rectangle).	K.G.B.6+	MP.2, MP.4, MP.6
<b>(optional) Unit 16 - Solving problems and demonstrating fluency within 5</b>		
1. The meaning of addition does not change when different strategies are used.	K.OA.A.2, K.OA.A.5+*	MP.1, MP.8
2. The meaning of subtraction does not change when different strategies are used.	K.OA.A.2, K.OA.A.5+*	MP.1, MP.8
3. Fluently adding and subtracting can help us solve math problems more efficiently.	K.OA.A.2, K.OA.A.5+*	MP.1, MP.8

\* K.OA.A.5 - Add/Sub within 5: Fluency is built all year within lessons, during Number Talks and through game play. Focus on efficiency and flexibility that lead to accuracy is key for this standard. While many are ready, please note that students are not required to write equations until Grade 1.

KEY:

Color by Domain	NF	OA	CC	GEO	NBT	MD
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