

Kindergarten Math Standards by Nine Weeks for 2015-2016

First Nine Weeks: Aug. 17 – Oct. 13, 2015

FIRST 15 DAYS: Establish Classroom Routines and Procedures

PRE-KINDERGARTEN MODULE 1: Counting to 5

Know number names and the count sequence.

PK.CC.1 Count to 20.

PK.CC.2 Represent a number of objects with a written numeral 0–5 (with 0 representing a count of no objects).

Count to tell the number of objects.¹

PK.CC.3 Understand the relationship between numbers and quantities to 10; connect counting to cardinality.

- a. 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.
- b. 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.
- c. Understand that each successive number name refers to a quantity that is one larger.

PK.CC.4 Count to answer "how many?" questions about as many as 10 things arranged in a line, a rectangular array, or a circle, or as many as 5 things in a scattered configuration; given a number from 1–10, count out that many objects.

Understand simple patterns.

PK.OA.2 Duplicate and extend (e.g., what comes next?) simple patterns using concrete objects.

Sort objects and count the number of objects in each category.

PK.MD.2 Sort objects into categories; count the number of objects in each category (limit category counts to be less than or equal to 10).

Second Nine Weeks: Oct. 14 – Dec. 18, 2015

KINDERGARTEN MODULE 1: Numbers to 10

Know number names and the count sequence.²

K.CC.3 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).

¹ Within 5.

² The balance of this cluster is addressed in Module 5.

Kindergarten Math Standards by Nine Weeks for 2015-2016

Count to tell the number of objects.³

- K.CC.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
- 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.
 - 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.
 - Understand that each successive number name refers to a quantity that is one larger.
- K.CC.5** 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.

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.⁴

- K.OA.3** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).

Classify objects and count the number of objects in each category.

- K.MD.3** Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)

KINDERGARTEN MODULE 2: Two-Dimensional and Three-Dimensional Shapes

Classify objects and count the number of objects in each category.

- K.MD.3** Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

- K.G.1** 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.2** Correctly name shapes regardless of their orientations or overall size.
- K.G.3** Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).

³ K.CC.4d is addressed in Module 6.

⁴ The balance of this cluster is addressed in Module 4.

Kindergarten Math Standards by Nine Weeks for 2015-2016

Analyze, compare, create, and compose shapes.⁵

- K.G.4** Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

Third Nine Weeks: Jan. 4 – Mar. 8, 2016

KINDERGARTEN MODULE 6: Analyzing, Comparing, and Composing Shapes

Count to tell the number of objects.⁶

- K.CC.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
- d. Develop understanding of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.

Analyze, compare, create, and compose shapes.⁷

- K.G.5** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- K.G.6** Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

KINDERGARTEN MODULE 5: Numbers 10-20, Count to 100 by Ones and Tens

Know number names and the count sequence.

- K.CC.1** Count to 100 by ones and by tens.
- K.CC.2** Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.3** 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).

Count to tell the number of objects.⁸

- K.CC.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
- b. 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.
- c. Understand that each successive number name refers to a quantity that is one larger.
- K.CC.5** Count to answer "how many?" questions about as many as 20 things arranged in a line, a

⁵ The balance of this cluster is addressed in Module 6.

⁶ Ordinality is introduced in the context of constructing and manipulating shapes. The balance of this cluster is addressed in Modules 1 and 5.

⁷ K.G.4 is addressed in Module 2.

⁸ K.CC.4a and K.CC.4d are addressed in Module 1; K.CC.4d is addressed again in Module 6.

Kindergarten Math Standards by Nine Weeks for 2015-2016

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.

Work with numbers 11–19 to gain foundations for place value.

- K.NBT.1** 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 (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

KINDERGARTEN MODULE 4: Number Pairs, Addition and Subtraction to 10 (Topic A)

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

- K.OA.1** Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (Drawings need not show details, but should show the mathematics in the problem. This applies wherever drawings are mentioned in the Standards.)
- K.OA.3** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
- K.OA.5** Fluently add and subtract within 5.

Fourth Nine Weeks: Mar. 9 – May 25, 2016

KINDERGARTEN MODULE 4: Number Pairs, Addition and Subtraction to 10 (Topics B-H)

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

- K.OA.1** Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (Drawings need not show details, but should show the mathematics in the problem. This applies wherever drawings are mentioned in the Standards.)
- K.OA.2** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- K.OA.3** Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).
- K.OA.4** For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
- K.OA.5** Fluently add and subtract within 5.

Kindergarten Math Standards by Nine Weeks for 2015-2016

KINDERGARTEN MODULE 3: Comparison of Length, Weight, Capacity, and Numbers to 10

Compare numbers.

- K.CC.6** Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.)
- K.CC.7** Compare two numbers between 1 and 10 presented as written numerals.

Describe and compare measurable attributes.

- K.MD.1** Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- K.MD.2** Directly compare two objects with a measurable attribute in common, to see which object has “more of”/”less of” the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*

Last 9 Days of School: Fluency for Addition and Subtraction within 5