

Sequence of Pre-Kindergarten Modules Aligned with the Standards

Module 1: Numbers to 5

Module 2: Two-Dimensional and Three-Dimensional Shapes

Module 3: Counting to Answer Questions of How Many

Module 4: Comparison of Length, Weight, and Capacity

Module 5: Numerals to 5, Addition and Subtraction Stories, Counting to 20

Summary of Year

Pre-Kindergarten mathematics is about (1) developing an understanding of whole numbers using concrete materials, including concepts of correspondence, counting, cardinality, and comparison; and (2) describing shapes in their environment. More learning time in Pre-Kindergarten should be devoted to developing the concept of number than to other topics.

Rationale for Module Sequence in Pre-Kindergarten

Students enter Pre-Kindergarten and find a well-planned, sequential math program awaiting, one that is embedded with hands-on, playful, interactive, largely concrete experiences. Students are encouraged to use their math words to communicate their observations.

The first step, done in Module 1, is to analyze, sort, classify, and count up to 5 with meaning. In Module 2, students practice their numbers up-to-five fluency as they encounter and engage with circles, rectangles, squares, and triangles in their environment. With numbers to 5 understood, work begins in Module 3 on extending “How Many” questions up to 10. The key here is to build from 5, using their fingers to support this perspective.

- 6 is 5 and 1
- 7 is 5 and 2
- 8 is 5 and 3, etc.



Thus, numbers 6–10 are 5 together with numbers 1–5, making the numbers to 10 familiar and manageable. In Module 4, students measure length, weight, and capacity, developing their word bank to include the language of comparison: “small, big, short and tall (length), heavy and light (weight),

empty and full (capacity), while continuing to practice fluency with numbers to 10. With numbers 1–10 still developing, counting to 20 begins while addition and subtraction are initiated within classroom stories and playful contexts in Module 5.

Alignment Chart

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Pre-Kindergarten Modules ⁶
<p>Module 1: Numbers to 5⁷ (45 days)</p>	<p>Know number names and the count sequence.</p> <p>PK.CC.1 Count to 20.</p> <p>PK.CC.2 Represent a number of objects with a written numeral 0–5 (with 0 representing a count of no objects).</p> <p>Count to tell the number of objects.⁸</p> <p>PK.CC.3 Understand the relationship between numbers and quantities to 10; connect counting to cardinality.</p> <ol style="list-style-type: none"> 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. <p>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.</p>

⁶ When a cluster is referred to in this chart without a footnote, the cluster is taught in its entirety.

⁷ In this module, standards work is limited to within 5.

⁸ Within 5.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Pre-Kindergarten Modules ⁶
	<p>Compare numbers.⁹</p> <p>PK.CC.5 Identify whether the number of objects in one group is more, less, greater than, fewer, and/or equal to the number of objects in another group, e.g., by using matching and counting strategies.</p> <p>Understand simple patterns.</p> <p>PK.OA.2 Duplicate and extend (e.g., What comes next?) simple patterns using concrete objects.</p> <p>Sort objects and count the number of objects in each category.¹⁰</p> <p>PK.MD.2 Sort objects into categories; count the numbers of objects in each category.</p>
<p>Module 2: Two-Dimensional and Three-Dimensional Shapes (15 days)</p>	<p>Sort objects and count the number of objects in each category.</p> <p>PK.MD.2 Sort objects into categories; count the numbers of objects in each category. (Limit category counts to be less than or equal to 10.)</p> <p>Identify and describe shapes (squares, circles, triangles, rectangles).</p> <p>PK.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as top, bottom, up, down, in front of, behind, over, under, and next to.</p> <p>PK.G.2 Correctly name shapes regardless of size.</p> <p>Analyze, compare, and sort objects.</p> <p>PK.G.3 Analyze, compare, and sort two- and three-dimensional shapes and objects, in different sizes, using informal language to describe their similarities, differences, and other attributes (e.g., color, size, and shape).</p> <p>PK.G.4 Create and build shapes from components (e.g., sticks and clay balls).</p>

⁹ The balance of this cluster is addressed in Modules 3 and 4.

¹⁰ Within 5.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Pre-Kindergarten Modules ⁶
<p>Module 3: Counting to Answer Questions of How Many (50 days)</p>	<p>Count to tell the number of objects.</p> <p>PK.CC.3 Understand the relationship between numbers and quantities to 10; connect counting to cardinality.</p> <ol style="list-style-type: none"> 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. <p>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.</p> <p>Compare numbers.¹¹</p> <p>PK.CC.5 Identify whether the number of objects in one group is more, less, greater than, fewer, and/or equal to the number of objects in another group, e.g., by using matching and counting strategies.</p> <p>PK.CC.6 Identify “first” and “last” related to order or position.</p> <p>Sort objects and count the number of objects in each category.</p> <p>PK.MD.2 Sort objects into categories; count the numbers of objects in each category. (Limit category counts to be less than or equal to 10.)</p>
<p>Module 4: Comparison of Length, Weight, and Capacity (35 days)</p>	<p>Compare numbers.</p> <p>PK.CC.5 Identify whether the number of objects in one group is more, less, greater than, fewer, and/or equal to the number of objects in another group, e.g., by using matching and counting strategies.</p>

¹¹ PK. CC. 5 focuses here on “more,” “less” and “equal to.” “Than” is excluded and introduced in the context of measurement in Module 4.

Module and Approximate Number of Instructional Days	Common Core Learning Standards Addressed in Pre-Kindergarten Modules ⁶
	<p>PK.CC.6 Identify “first” and “last” related to order or position.</p> <p>Describe and compare measurable attributes.</p> <p>PK.MD.1 Identify measurable attributes of objects, such as length, and weight. Describe them using correct vocabulary (e.g., small, big, short, tall, empty, full, heavy, and light).</p>
<p>Module 5: Numerals to 5, Addition and Subtraction Stories, Counting to 20 (35 days)</p>	<p>Know number names and the count sequence.</p> <p>PK.CC.1 Count to 20.</p> <p>PK.CC.2 Represent a number of objects with a written numeral 0–5 (with 0 representing a count of no objects).</p> <p>Understand addition as adding to, and understand subtraction as taking from.</p> <p>PK.OA.1 Demonstrate an understanding of addition and subtraction by using objects, fingers, and responding to practical situations (e.g., If we have 3 apples and add two more, how many apples do we have all together?).</p> <p>Understand simple patterns.</p> <p>PK.OA.2 Duplicate and extend (e.g., What comes next?) simple patterns using concrete objects.</p>