

New York State Next Generation Mathematics Learning Standards

Kindergarten Crosswalk

Counting and Cardinality

Cluster	NYS P-12 CCLS	NYS Next Generation Learning Standard
<p><b>Know number names and the count sequence.</b></p>	<p><b>K.CC.1</b> Count to 100 by ones and by tens.</p>	<p><b>NY-K.CC.1</b> Count to 100 by ones and by tens.</p>
	<p><b>K.CC.2</b> Count forward beginning from a given number within the known sequence (instead of having to begin at 1).</p>	<p><b>NY-K.CC.2 Count to 100 by ones</b> beginning from any given number (instead of beginning at 1).</p>
	<p><b>K.CC.3</b> 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).</p>	<p><b>NY-K.CC.3</b> 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).</p>
<p><b>Count to tell the number of objects.</b></p>	<p><b>K.CC.4</b> Understand the relationship between numbers and quantities; connect counting to cardinality.</p> <p>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.</p> <p>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.</p> <p>c. Understand that each successive number name refers to a quantity that is one larger.</p> <p>d. Develop understanding of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.</p>	<p><b>NY-K.CC.4</b> Understand the relationship between numbers and quantities <b>up to 20</b>; connect counting to cardinality.</p> <p><b>NY-K.CC.4a</b> 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>(1:1 correspondence)</b></p> <p><b>NY-K.CC.4b</b> Understand that the last number name said tells the number of objects counted, <b>(cardinality)</b>. The number of objects is the same regardless of their arrangement or the order in which they were counted.</p> <p><b>NY-K.CC.4c Understand the concept</b> that each successive number name refers to a quantity that is one larger.</p> <p><b>NY-K.CC.4d Understand the concept</b> of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.</p>

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<b>Count to tell the number of objects.</b>	<b>K.CC.5</b> 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.	<p><b>NY-K.CC.5a</b> Answer counting questions using as many as 20 objects arranged in a line, a rectangular array, and a circle. Answer counting questions using as many as 10 objects in a scattered configuration.</p> <p>e.g., “How many _____ are there?”</p> <p><b>NY-K.CC.5b</b> Given a number from 1–20, count out that many objects.</p>
<b>Compare numbers.</b>	<p><b>K.CC.6</b> 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.</p> <p><u>Note:</u> Includes groups with up to ten objects.</p>	<p><b>NY-K.CC.6</b> Identify whether the number of objects in one group is greater than (<b>more than</b>), less than (<b>fewer than</b>), or equal to (<b>the same as</b>) the number of objects in another group.</p> <p>e.g., using matching and counting strategies.</p> <p><u>Note:</u> Include groups with up to ten objects.</p>
	<b>K.CC.7</b> Compare two numbers between 1 and 10 presented as written numerals.	<p><b>NY-K.CC.7</b> Compare two numbers between 1 and 10 presented as written numerals.</p> <p>e.g., 6 is greater than 2.</p>

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Operations and Algebraic Thinking

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<p><b>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</b></p>	<p><b>K.OA.1</b> Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</p> <p><u>Note:</u> Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the standards)</p>	<p><b>NY-K.OA.1</b> Represent addition and subtraction using objects, fingers, pennies, drawings, sounds, acting out situations, verbal explanations, expressions, equations <b>or other strategies</b>.</p> <p><u>Note:</u> Drawings need not show details, but should show the mathematics in the problem.</p>
	<p><b>K.OA.2</b> Solve addition and subtraction word problems, and add and subtract within 10, e.g., <del>by</del> using objects or drawings to represent the problem.</p>	<p><b>NY-K.OA.2a</b> Add and subtract within 10.</p> <p><b>NY-K.OA.2b</b> Solve addition and subtraction word problems within 10. e.g., using objects or drawings to represent the problem.</p>
	<p><b>K.OA.3</b> Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., <del>by</del> using objects or drawings, and record each decomposition by a drawing or equation (e.g., <math>5 = 2 + 3</math> and <math>5 = 4 + 1</math>).</p>	<p><b>NY-K.OA.3</b> Decompose numbers less than or equal to 10 into pairs in more than one way.</p> <p>Record each decomposition by a drawing or equation. e.g., using objects or drawings.</p>
	<p><b>K.OA.4</b> For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., <del>by</del> using objects or drawings, and record the answer with a drawing or equation.</p>	<p><b>NY-K.OA.4</b> Find the number that makes 10 when given a number from 1 to 9.</p> <p>Record the answer with a drawing or equation. e.g., using objects or drawings.</p>
	<p><b>K.OA.5</b> Fluently add and subtract within 5.</p>	<p><b>NY-K.OA.5</b> Fluently add and subtract within 5.</p> <p><u>Note:</u> Fluency involves a mixture of just knowing some answers, knowing some answers from patterns, and knowing some answers from the use of strategies.</p>

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**Operations and Algebraic Thinking**

<b>Cluster</b>	<b>NYS P-12 CCLS</b>	<b>NYS Next Generation Learning Standard</b>
Understand simple patterns.		NY-K.OA.6 Duplicate, extend, and create simple patterns using concrete objects.

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Number and Operations in Base Ten

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<p><b>Work with numbers 11-19 to gain foundations for place value.</b></p>	<p><b>K.NBT.1</b> Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., <del>by</del> using objects or drawings, and record each composition or decomposition by a drawing <del>or equation (such as <math>18 = 10 + 8</math>)</del>; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p><b>NY-K.NBT.1</b> Compose and decompose the numbers from 11 to 19 into ten ones and <b>one, two, three, four, five, six, seven, eight, or nine ones.</b>  e.g., using objects or drawings.</p>

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**Measurement and Data**

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<p><b>Describe and compare measurable attributes.</b></p>	<p><b>K.MD.1</b> Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p>	<p><b>NY-K.MD.1</b> Describe measurable attributes of an object(s), such as length or weight, <b>using appropriate vocabulary.</b></p> <p>e.g., small, big, short, tall, empty, full, heavy, and light.</p>
	<p><b>K.MD.2</b> Directly compare two objects with a measurable attribute in common, <del>to see which object has “more of”/“less of” the attribute,</del> and describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></p>	<p><b>NY-K.MD.2</b> Directly compare two objects with a <b>common</b> measurable attribute and describe the difference.</p>
<p><b>Classify objects and count the number of objects in each category.</b></p>	<p><b>K.MD.3</b> Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p><u>Note:</u> Limit category counts to be less than or equal to 10.</p>	<p><b>NY-K.MD.3</b> Classify objects into given categories; count the objects in each category and sort the categories by count.</p> <p><u>Note:</u> Limit category counts to be less than or equal to 10.</p>
		<p><b>NY-K.MD.4 Explore coins (pennies, nickels, dimes, and quarters) and begin identifying pennies and dimes.</b></p>

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Geometry

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<b>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres).</b>	<b>K.G.1</b> Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above, below, beside, in front of, behind,</i> and <i>next to</i> .	<b>NY-K.G.1</b> 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.
	<b>K.G.2</b> Correctly name shapes regardless of their orientations or overall size.	<b>NY-K.G.2</b> Name shapes regardless of their orientation or overall size.
	<b>K.G.3</b> Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).	<b>NY-K.G.3</b> Understand the difference between two-dimensional (lying in a plane, “flat”) and three-dimensional (“solid”) shapes.

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Geometry

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<p><b>Analyze, compare, sort and compose shapes.</b></p>	<p><b>K.G.4</b> 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).</p>	<p><b>NY-K.G.4</b> Analyze, compare, and <b>sort</b> two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts, and other attributes.</p> <p>e.g., number of sides and vertices/“corners”, or having sides of equal length.</p>
	<p><b>K.G.5</b> Model shapes in <del>the world</del> by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</p>	<p><b>NY-K.G.5</b> Model objects in <b>their environment</b> by building and/or drawing shapes.</p> <p><b>e.g., using blocks to build a simple representation in the classroom.</b></p> <p><b>Note on and/or:</b> Students should be taught to model objects by building and drawing shapes; however, when answering a question, students can choose to model the object by building or drawing the shape.</p>
	<p><b>K.G.6</b> Compose simple shapes to form larger shapes. <i>For example, “Can you join these two triangles with full sides touching to make a rectangle?”</i></p>	<p><b>NY-K.G.6</b> Compose larger shapes from simple shapes.</p> <p>e.g., join two triangles to make a rectangle.</p>