



Kindergarten Mathematics: Counting and Cardinality		
Grade-Level Standards	DLM Essential Element	Unpacked
Know number names and the count sequence		
K.CC.1. Count to 100 by ones and by tens.	EE.K.CC.1. Starting with one, count to 10 by ones.	<p>Concept: Numbers have meaning.</p> <p>Skills: Indicate the desire for more quantity of something; use number words when naming a quantity even if it is not the right number word; count 1-10 in sequence.</p> <p>Big Idea: Use words or numerals to represent quantity.</p> <p>Essential Questions: How do I communicate the number I want? What number names are used to count to 10? Which words describe how many?</p>
K.CC.2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Not applicable. See EE.2.NBT.2.b.	
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).	Not applicable. See EE.2.NBT.3.	



Grade-Level Standards	DLM Essential Element	Unpacked
Count to tell the number of objects		
<p>K.CC.4. Understand the relationship between numbers and quantities; connect counting to cardinality.</p>	<p>EE.K.CC.4. Demonstrate one-to-one correspondence, pairing each object with one and only one number and each number with one and only one object.</p>	<p>Concept: Numbers have a sequence and represent quantity.</p>
<p>K.CC.4.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>Skills: Count objects using a one-to-one correspondence, pairing each object with one and only one number and each number with one and only one object; identify total quantity in a set using a single number name; count items (concrete, pictorial) to tell how many; count out up to three objects from a larger set.</p>
<p>K.CC.4.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>Big Idea: Use numbers to identify how many in a set.</p>
<p>K.CC.4.c. Understand that each successive number name refers to a quantity that is one larger.</p>	<p>EE.K.CC.5. Count out up to three objects from a larger set, pairing each object with one and only one number name to tell how many.</p>	<p>Essential Questions: What is the sequence I use to count? What number name goes with each object in the group? How do I know when to stop counting? How many objects are there? How can I organize the objects so I remember what I have counted?</p>
<p>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.</p>		



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Compare numbers		
<p>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.</p>	<p>EE.K.CC.6. Identify whether the number of objects in one group is more or less than (when the quantities are clearly different) or equal to the number of objects in another group.</p>	<p>Concept: Discriminates between groups.</p>
<p>K.CC.7. Compare two numbers between 1 and 10 presented as written numerals.</p>	<p>Not applicable. See EE.2.NBT.4.</p>	<p>Skills: Identify a group of objects to be counted; identify two or more groups as more or less; identify two or more groups of equal value; identify two or more groups as more, less, or equal.</p> <p>Big Ideas: Sets can be compared by their relative quantities.</p> <p>Essential Questions: What is a group? Which group has more, less or equal quantities?</p>

Kindergarten Mathematics: Operations and Algebraic Thinking		
Grade-Level Standards	DLM Essential Element	Unpacked
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.	EE.K.OA.1. Represent addition as “putting together” or subtraction as “taking from” in everyday activities.	<p>Concept: Addition and subtraction are used to represent and solve many different kinds of problems.</p> <p>Skills: Identify a group as being more when two or more groups are put together; identify a group as being less when objects are taken away; use one-to-one correspondence to find the quantity of a group before and after “putting together” or “taking from” the group.</p> <p>Big Idea: The quantity of a group can change when items are put with or taken from a group.</p> <p>Essential Questions: What happens when I combine groups? What happens when I take groups apart?</p>
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.	Not applicable. See EE.2.NBT.6–7.	
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 $5 = 4 + 1$).	Not applicable. See EE.1.NBT.6.	
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.	Not applicable. See EE.1.NBT.2.	
K.OA.5. Fluently add and subtract within 5.	Not applicable. See EE.3.OA.4.	



Kindergarten Mathematics: Number and Operations in Base Ten		
Grade-Level Standards	DLM Essential Element	Unpacked
Work with numbers 11–19 to gain foundations for place value		
<p>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 (such as $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p>Not applicable. See EE.1.NBT.4 and EE.1.NBT.6.</p>	<p>Not applicable.</p>



Kindergarten Mathematics: Measurement and Data		
Grade-Level Standards	DLM Essential Element	Unpacked
Describe and compare measurable attributes		
<p>K.MD.1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>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.</p>	<p>EE.K.MD.1-3. Classify objects according to attributes (big/small, heavy/light).</p>	<p>Concept: We find out about objects by looking at, touching, and directly comparing them.</p> <p>Skills: Identify objects as heavy or light; identify objects as small or big; identify objects as same or different; compare objects big/small, heavy/light; group objects by attributes.</p> <p>Big Idea: Objects with similar characteristics can be grouped together.</p> <p>Essential Questions: Are these objects the same or different? Are these objects big or small? Are these objects heavy or light?</p>
Grade-Level Standards	DLM Essential Element	Unpacked
Classify objects and count the number of objects in each category		
<p>K.MD.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by</p>	<p>EE.K.MD.1-3. Classify objects according to attributes (big/small, heavy/light).</p>	<p>See Above</p>

Kindergarten Mathematics: Geometry		
Grade-Level Standards	DLM Essential Element	Unpacked
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.	Not applicable. See EE.1.G.a.	<p>Concept: Shapes have specific attributes.</p> <p>Skills: Recognize the name of a shape; identify shapes of the same size; identify shapes of the same orientation; group shapes based on attribute; match same shapes.</p> <p>Big Idea: Shapes can be categorized by similar characteristics.</p> <p>Essential Questions: Are these shapes the same or different? Do these shapes match?</p>
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”).	EE.K.G.2–3. Match shapes of same size and orientation (circle, square, rectangle, triangle).	



Grade-Level Standards	DLM Essential Element	Unpacked
Analyze, compare, create, and compose shapes		
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).	Not applicable. See EE.7.G.1.	Not applicable.
K.G.5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	Not applicable.	
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?”	Not applicable. See EE.1.G.3.	