

Kindergarten Mathematics					
Mathematical Practices	Counting and Cardinality	Numbers and Operations in Base Ten	Operations and Algebraic Thinking	Measurement and Data	Geometry
<p>Make sense of problems and persevere in solving them.</p> <p>Reason abstractly and quantitatively.</p> <p>Construct viable arguments and discuss the reasoning of others.</p> <p>Model with mathematics.</p> <p>Use appropriate tools strategically.</p> <p>Attend to precision.</p> <p>Look for and make use of structure.</p> <p>Look for and express regularity in repeated reasoning.</p>	<p><b>Know number names and the counting sequence:</b></p> <p>Understand and demonstrate one-to-one correspondence.</p> <p>Estimate and predict numbers of objects to 10 and then count objects accurately.</p> <p>Count to 100 by ones, fives, and tens.</p> <p>Count forward and backward beginning with a given number within the known sequence.</p> <p><b>Count to tell the number of objects:</b></p> <p>Count by odd and even numbers to 10.</p>	<p><b>Work with numbers 11-19 to gain foundations for place value:</b></p> <p>Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects drawing or equation (such as <math>18 = 10 + 8</math>); understand that these numbers are composed of ten ones plus extra numbers.</p> <p>Represent addition and subtraction problems with Cuisenaire rods and number equations to 10.</p>	<p><b>Understand addition, and understand subtraction:</b></p> <p>Represent addition and subtraction by using different media, such as with objects, fingers, mental images, drawings, hand claps, acting out situations, verbal explanations, expressions, or equations.</p> <p>Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.</p> <p>Represent number</p>	<p><b>Describe and compare measurable attributes:</b></p> <p>Compare measurement and weight using non-standard and standard units.</p> <p>Measure using a ruler to inches.</p> <p>Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p> <p>Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and</p>	<p><b>Identify and describe shapes:</b></p> <p>Create and manipulate shapes using hands-on materials.</p> <p>Identify symmetry.</p> <p>Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i>, <i>below</i>, <i>beside</i>, <i>in front of</i>, <i>behind</i>, and <i>next to</i>.</p> <p>Correctly name shapes.</p> <p>Identify shapes as two-dimensional (lying in a plane, "flat") or three-</p>

	<p>Know the meaning of patterns.</p> <p>Recognize and extend linear patterns.</p> <p>Write numbers to 100.</p> <p>Represent numbers 0-20 using objects.</p> <p>Understand the relationship between numbers and quantities; connect counting to cardinality</p> <p>Sort objects and count.</p> <p>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>Understand that each</p>		<p>composition to 10. Use objects to manipulate the equations.</p> <p>Decompose number less than or equal to 10 into pairs in more than one way.</p> <p>For any number from 1 to 9, find the number that makes 10 when added to the given number.</p> <p>Fluently add and subtract within 10.</p>	<p>describe the difference. <i>For example, directly compare the heights of two children and describe one child as taller/shorter.</i></p> <p><b>Classify objects and count the number of objects in each category:</b></p> <p>Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p> <p><b>Work with time and money:</b></p> <p>Read and use a calendar.</p> <p>Tell and write time from analog and digital clock to the hour. Also, work with time to the half-hour</p> <p>Understand passage of time.</p>	<p>dimensional (“solid”).</p> <p><b>Analyze, compare, create, and compose shapes:</b></p> <p>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>Model shapes in the world by building shapes from components (e.g., rubber bands, sticks and clay balls) and drawing shapes.</p> <p>Compose simple and complex shapes.</p> <p>Compose simple shapes to form larger</p>
--	--	--	---	---	---

	<p>successive number name refers to a quantity that is one larger.</p> <p>Count to answer "how many?" questions.</p> <p><b>Compare Numbers:</b></p> <p>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>Compare two numbers between 1 and 10 presented as written numerals.</p>			<p>Identify coins by their name and value.</p> <p>Count change using a collection of coins to \$0.50.</p> <p><b>Represent and interpret data:</b></p> <p>Collect data and create bar graphs.</p> <p>Interpret data on bar graphs.</p>	<p>shapes.</p>
--	--	--	--	---	----------------

**Kindergarten Math Vocabulary:**

**Comparison:** big, equal, more, between, less, before, after, opposite, small, compare, estimate

**Counting:** hundred, count forward, even, number, odd, numeral, quantity, small, big count backwards, skip-count

**Grouping:** pair, table, add, equal, ten, one, count forward, tally, group

**Money:** coin, money, cent, penny, dime, quarter, count, dollar, nickel

**Sequence:** fourth, number line, sequence, order, tens, ones, even numbers, odd numbers

**Operations & Algebraic Thinking:** different, alike, sort, outside, object, match, size, similar

**Number & Operations in Base Ten:** minus, value, behind, sum, above, difference, add, compare, zero, below, subtract, under, ones, tens, beside, between, addition, sort

**Measurement & Data:** measure, long, estimate, longest, shorter, small, size, big, short, biggest, today, time, minute, calendar, hour, second, yesterday, morning, afternoon, date, minute hand, first, second hand, hour hand, clock, year, equal parts, month, day, week

**Geometry:** square, shapes, pattern, triangle, rectangle, cylinder, halves, cone, in front of, cube, inside, middle, sphere, corner, curves, right, graph, circle, left, symmetry