

	Kindergarten	First	Second	Third	Fourth	Fifth
Coun T I Ng And	CC K.1: Count to 100 by ones and by tens.					
	CC K.2: Count forward beginning from a given number within the known sequence (instead of beginning at 1).					
	CC K.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).					
	CC K.4B: 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.					
	CC K.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.					
	CC K.7: Compare two numbers between 1 and 10 presented as written numerals.					

A S S E S S M E N T						
Ope R A T I O ns	<p>OA K.1: Represent addition and subtraction with objects, fingers, mental images, drawings¹, sounds (e.g., <i>claps</i>), acting out situations, verbal explanations, expressions, or equations.</p>	<p>OA 1.1: Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>OA 2.1: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.</p>	<p>3. OA 3: Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p>	<p>4.OA.3: Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies</p>	<p>5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.</p>

					including rounding.	
	<p>OA K.2: 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>OA 1.2: Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>OA 2.2: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.</p>	<p>3.OA.5: Apply properties of operations as strategies to multiply and divide. (Note: Students need not use formal terms for these properties.) Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 =$</p>	<p>4.OA.4: Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.</p>	<p>5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.</p>

				<p>16, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)</p>		
	<p>OA K.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.</p>	<p>OA 1.4: Understand subtraction as an unknown-addend problem.</p>		<p>3.OA.7: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.</p>	<p>4.OA.5: Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to</i></p>	

					<i>alternate in this way.</i>	
	OA K.5: Fluently add and subtract within 5.	OA 1.6: Use addition to find the total number. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.				
		OA 1.7: Understand the meaning of the equal sign, and determine if equations				

		involving addition and subtraction are true or false.				
Assessments		1st Grade Operations and Algebraic Thinking Rubric	2nd Grade Operations and Algebraic Thinking Rubric	3rd Grade Operations and Algebraic Thinking Rubric	4th Grade Operations and Algebraic Thinking Rubric	5th Grade Operations and Algebraic Thinking Rubric
Number & Operations	NBT K.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	NBT 1.1: Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	NBT 2.1: Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.	3.NBT.1: Use place value understanding to round whole numbers to the nearest 10 or 100.	4.NBT.2: Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each	5.NBT.3 Read, write, and compare decimals to thousandths.

	<p>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>place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p>	
		<p>NBT 1.2: Understand that the two digits of a two-digit number represent amounts of tens and ones.</p>	<p>NBT 2.3: Read and write numbers to 1000 using base-ten numerals, number frames, and expanded form.</p>	<p>3.NBT.2: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction</p>	<p>4.NBT.4: Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p>	<p>5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.</p>
		<p>NBT 1.3: Compare two-digit numbers based on meanings of the tens and ones digits, recording the results of</p>	<p>NBT 2.4: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$</p>	<p>3.NBT.3: Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80, 5×60) using</p>	<p>4.NBT.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit</p>	<p>5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit</p>

		comparisons with the symbols $>$, $=$, and $<$.	symbols to record the results of comparisons.	strategies based on place value and properties of operations	numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.
		NBT 1.4: Add within 100, including adding a two-digit number and a one-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written	NBT 2.5: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.		4.NBT.6: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations,	5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

		method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.			rectangular arrays, and/or area models.	
		NBT 1.5: Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	NBT 2.8: Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.			

<p><i>compare the heights of two children and describe one child as taller/shorter.</i></p>	<p>measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</p>	<p>relate to the size of the unit chosen.</p>	<p>representing the problem on a number line diagram.</p>	<p>express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1,12), (2,24), (3,36),...</i></p>	
<p>MD K.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</p>	<p>MD 1.3: Tell and write time in hours and half-hours using analog and digital clocks.</p>	<p>MD 2.4: Measure to determine how much longer one object is than another expressing the length difference in terms of a standard length unit.</p>	<p>3.MD.3: Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems</p>	<p>4.MD.4: Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information</p>	

				using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets	presented in line plots. <i>For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</i>	
			MD 2.6: Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2. Represent whole-number sums and differences within 100 on a number line diagram.	3.MD.4: Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.	4.MD.6: Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure	
			MD 2.7: Tell and write time from analog and digital clocks to the	3.MD.7: Relate area to the operations of	4.MD.7: Recognize angle measure as additive. When an angle is	

			nearest five minutes, using a.m. and p.m.	multiplication and addition.	decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.	
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			<p>MD 2.8: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and cents symbols appropriately.</p>	<p>3.MD.8: Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.</p>		
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			<p>MD 2.10: Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.</p>			
<p>A S S E S S M</p>		<p><u>1st Grade Measurement and Data Rubric</u></p>	<p><u>2nd Grade Measurement and Data Rubric</u></p>	<p><u>3rd Grade Measurement and Data Rubric</u></p>	<p><u>4th Grade Measurement and Data Rubric</u></p>	<p><u>5th Grade Measurement and Data Rubric</u></p>

G K.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*.

G 1.2: Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

G 2.1: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

3.G.1: Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

4.G.2: Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system... Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis.

	<p>G K.3: Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</p>	<p>G 1.3: Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.</p>	<p>G 2.2: Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p>	<p>3.G.2: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.</p>	<p>4.G.3: Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.</p>	
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A S S E S S M		<u>1st Grade Geometry Rubric</u>	<u>2nd Grade Geometry Rubric</u>	<u>3rd Grade Geometry Rubric</u>	<u>4th Grade Geometry Rubric</u>	<u>5th Grade Geometry Rubric</u>

N D M B F R C				<p>3.NF.1: Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.</p>	<p>4.NF.1: Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent</p>	<p>5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.</p>

					fractions.4.NF.3: Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.	
				3.NF.2: Understand a fraction as a number on the number line; represent fractions on a number line diagram.	4.NF.2: Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to	5.NF.3 Interpret a fraction as division of the numerator by the denominator ($a \div b = a/b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

					the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.	
				3.NF.3: Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	4.NF.3: Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.	5.NF.5 Interpret multiplication as scaling (resizing)

					<p>4.NF.6: Use decimal notation for fractions with denominators 10 or 100. <i>For example, rewrite 0.62 and 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</i></p>	<p>5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>
					<p>4.NF.7: Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.</p>	

Assessments				3rd Grade Numbers and Fractions Rubric	4th Grade Numbers and Fractions Rubric	5th Grade Numbers and Fractions Rubric

District: Riverview Priority K-5 Math Standards – Elementary Progression Matrix

