Second Grade Report Card Companion Rubric Math

Standard	Exceeding Standard	Meeting Standard	Approaching Standard	Not Yet
MATH				
Operations and Algebraic Thinking	- Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. - Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. - 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. - Determine the unknown whole number in a multiplication or division	-Use addition and subtraction within 100 to solve one- and two-step word problems -Fluently add and subtract within 20 using mental strategies -Determine whether a group of objects (up to 20) has an odd or even number of members. Write an equation to express an even number as a sum of two equal addends. - Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends	- 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. - 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. - Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. - Understand subtraction as an unknown-addend	- Does not represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. - Does not solve addition and subtraction word problems, and add and subtract within 10. - Does not decompose numbers less than or equal to 10 into pairs in more than one way. - Does not find the number that makes 10 when added to the given number (using numbers 1-9). - Fluently add and subtract within 5.

	equation relating three whole numbers. - Apply properties of operations as strategies to multiply and divide. - Understand division as an unknown-factor problem. - Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. Know from memory all products of two one-digit numbers. - Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. - Identify arithmetic patterns (including patterns in the addition table or multiplication		problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. Add and subtract within 20. - Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). - Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums. - Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. - Determine the unknown	

	table), and explain them using properties of operations.		whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.	
Number and Operations in Base Ten	- Use place value understanding to round whole numbers to the nearest 10 or 100. - 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. - Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.	-Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones -Count within 1000; skip-count by 5s, 10s, and 100s. -Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. -Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. -Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or	-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. Understand place value. -Understand that the two digits of a two-digit number represent amounts of tens and ones. -Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. - Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models	- Does not 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 (e.g., 18 = 10 +8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

		the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting threedigit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. -Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. -Explain why addition and subtraction strategies work, using place value and the properties of operation	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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. -Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. -Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90, 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.	
Measurement and Data	- Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes. - Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. - 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 using information presented in	-Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. -Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. -Estimate lengths using units of inches, feet, centimeters, and meters. -Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. Relate addition and subtraction to length. -Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and	- Order three objects by length; compare the lengths of two objects indirectly by using a third object. - Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. - Tell and write time in hours and half-hours using analog and digital clocks. - Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	- Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. - 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. Classify objects and count the number of objects in each category. - Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

	scaled bar graphs. - 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. - Recognize area as an attribute of plane figures and understand concepts of area measurement. - Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units). - Relate area to the operations of multiplication and addition. - 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	equations with a symbol for the unknown number to represent the problem. - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. - Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. -Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.		

	different areas or with the same area and different perimeters.	- 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 problems4 using information presented in a bar graph.		
Geometry	- 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. - Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	-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. - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. - Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes	- Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. - 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. - Partition circles and	- 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. - Correctly name shapes regardless of their orientations or overall size. - Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). - Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g.,

		need not have the same shape.	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.	number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length). - Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. - Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”