

4 th Grade Level Expectation Topic	Benchmark What the report card says	Focus Area within Benchmark Common Core State Standards
Operations and Algebraic Thinking	Fluently adds, subtracts, multiplies, and divides single digit numbers.	Uses the four operations of addition, subtraction, multiplication, and division to fluently solve problems. Interprets a multiplication equation as a comparison, e.g., interprets $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represents verbal statements of multiplicative comparisons as multiplication equations.
	Multiplies and divides to solve multi-step word problems and interprets remainders.	Multiplies or divides to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
	Identifies all factor pairs of any number through 100.	Finds all factor pairs for a whole number in the range 1-100. Recognizes that a whole number is a multiple of each of its factors. Determines whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determines whether a given whole number in the range 1-100 is prime or composite.
	Generates and analyzes patterns.	Generates a number or shape pattern that follows a given rule. Identifies apparent features of the pattern that were not explicit in the rule itself.
Numbers and Operations in Base Ten	Understands and uses place value.	Recognizes that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.
	Reads, interprets, compares, and rounds whole numbers.	Reads and writes multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compares two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of

		comparisons.
		Uses place value understanding to round multi-digit whole numbers to any place.
	Adds and subtracts multi-digit whole numbers.	Fluently adds and subtracts multi-digit whole numbers using the standard algorithm.
	Multiplies multi-digit whole numbers using a variety of strategies.	Multiplies a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrates and explains the calculation by using equations, rectangular arrays, and/or area models.
	Represents and solves division problems with and without remainders up to 4 digit dividends and one digit divisors.	Finds 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. Illustrates and explains the calculation by using equations, rectangular arrays, and/or area models.
Numbers and Operations - Fractions	Models, recognizes, and compares fractions.	Explains 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. Uses this principle to recognize and generate equivalent fractions.
	Compares two fractions with different numerators and different denominators.	Compares 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 $\frac{1}{2}$.
		Recognizes that comparisons are valid only when the two fractions refer to the same whole. Records the results of comparisons

		with symbols $>$, $=$, or $<$, and justify the conclusions by using a visual fraction model.
	Adds and subtracts fractions and mixed numbers with like denominators, including word problems.	Understands addition and subtraction of fractions as joining and separating parts referring to the same whole.
		Decomposes a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justifies decompositions e.g., by using a visual fraction model.
		Adds and subtracts mixed numbers with like denominators, e.g., by using visual fraction models and equations to represent the problem.
		Solves word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
	Writes fractions with denominators 10 or 100 as decimals.	Expresses a fraction with denominator 10 as an equivalent fraction with denominator 100, and uses this technique to add two fractions with respective denominators 10 and 100.
Compare two decimals written as tenths or hundredths using $>$, $<$, or $=$.	Compares two decimals to hundredths by reasoning about their size. Recognizes that comparisons are valid only when the two decimals refer to the same whole. Records the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual model.	
Measurement and Data	Solves problems involving measurement and conversion of measurements from	Knows relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, expresses measurements in a larger unit in

	larger to smaller units.	terms of a smaller unit. Records measurement equivalents in a two-column table.
	Solves word problems involving measurement using decimals and fractions.	Uses the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represents measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
	Applies area and perimeter formulas for rectangles.	Applies the area and perimeter formulas for rectangles in real world and mathematical problems.
	Solves problems involving a line plot.	Makes a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solves problems involving addition and subtraction of fractions by using information presented in line plots.
	Understands the concepts and measure of angles.	Recognizes angles as geometric shapes that are formed wherever two rays share a common endpoint, and understands concepts of angle measurement.
		Measures angles in whole number degrees using a protractor. Sketches angles of specified measure.
		Recognizes angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solves 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.

Geometry	Draws and identifies points, rays, and angles in 2 dimensional figures.	Draws points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identifies these in two-dimensional figures.
	Classifies shapes by the properties of their lines and angles.	Classifies 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. Recognizes right triangles as a category, and identify right triangles.
	Recognizes and draw lines of symmetry.	Recognizes 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.