4th Grade Math Curriculum Map

Last Updated: 10/16/2024

Quarter 1		
Essential Question/Topic	**Standards**	**Parent Resources**
Module 1: Place Value, Rounding, and Algorithms for Addition and Subtraction		
Topic A: Place Value of Multi-Digit Whole Numbers Topic B: Comparing Multi-Digit Whole Numbers Topic C: Rounding Multi-Digit Whole Numbers Topic D: Multi-Digit Whole Number Addition Topic E: Multi-Digit Whole Number Subtraction Topic F: Addition and Subtraction Word Problems	4.NBT.A.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. 4.NBT.A.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 place, using >, =, and < symbols to record the results of comparisons. 4.NBT.A.3-Use place value understanding to round multi-digit whole numbers to any place. 4.NBT.B.4-Fluently add and subtract multi-digit whole numbers using the standard algorithm. 4.OA.A.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 including rounding.	Student and Parent Videos Topic A-Parent Tips English Spanish Topic B- Parent Tips English Spanish Topic C-Parent Tips English Spanish Topic D- Parent Tips English Spanish Topic E- Parent Tips English Spanish Topic F- Parent Tips English Spanish
Module 2: Unit Conversions and Problem Solving with Metric Measurement		

Topic A: Metric Unit Conversions Topic B: Application of Metric Unit Conversions	4.MD.A.1-Know 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, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two- column table. 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) 4.MD.A.2- Use 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. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	Student and Teacher Videos Topic A- Parent Tips English Spanish Topic B- Parent Tips English Spanish
Module 3: Multi-Digit Multiplication and Division		
Topic A: Multiplicative Comparison Word Problems	4.MD.A.3- Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor. 4.OA.A.1 - Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. 4.OA.A.2-Multiply or divide 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.	Student and Teacher Videos Topic A- Parent Tips English Spanish

Quarter 2		
Essential Question/Topic	**Standards**	**Parent Resources**
Continue- Module 3: Multi-Digit Multiplication and Division		
Topic B: Multiplication by 10, 100, and 1,000 Topic C: Multiplication of up to Four Digits by Single-Digit Numbers Topic D: Multiplication Word Problems Topic E: Division of Tens and Ones with Successive Remainders	4.NBT.A.1-Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. 4.NBT.B.5-Multiply 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. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. 4.OA.A.1 Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. 4.OA.A.2-Multiply or divide 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 4.OA.A.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 including rounding. 4.NBT.B.6-Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on	Topic B- Parent Tips English Spanish Topic C- Parent Tips English Spanish Topic D- Parent Tips English Spanish Topic E- Parent Tips English Spanish

	place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	

Quarter 3		
Essential Question/Topic	**Standards**	**Parent Resources**
Continue- Module 3: Multi-Digit Multiplication and Division		
Topic F: Reasoning with Divisibility Topic G: Division of Thousands, Hundreds, Tens, and Ones Topic H: Multiplication of Two-Digit by Two-Digit Numbers	4.OA.B.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. 4.OA.C.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. 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 alternate in this way. 4.NBT.B.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, rectangular arrays, and/or area models. 4.OA.A.2-Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent	Topic F-Parent Tips English Spanish Topic G-Parent Tips English Spanish Topic H-Parent Tips English Spanish

	the problem, distinguishing multiplicative comparison from additive comparison 4.OA.A.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 including rounding. 4.NBT.B.5- Multiply 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. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	
Module 4: Angle Measure and Plane Figures		
Topic A: Lines and Angles Topic B: Angle Measurement Topic C: Problem Solving with the Addition of Angle Measures Topic D: Two-Dimensional Figures and Symmetry	4.G.A.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. 4.G.A.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. 4.G.A.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. 4.MD.C.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:	Topic A-Parent Tips English Spanish Topic B-Parent Tips English Spanish Topic C-Parent Tips English Spanish Topic D-Parent Tips English Spanish

	4.MD.C.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. 4.MD.C.7 Recognize 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. 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.	

Quarter 4		
Essential Question/Topic	**Standards**	**Parent Resources**
Module 5: Fraction Equivalence, Ordering, and Operations		Student and Teacher Videos
Topic A: Decomposition and Fraction Equivalence Topic B: Fraction Equivalence Using Multiplication and Division Topic C: Fraction Comparison Topic D: Fraction Comparison Topic E: Extending Fraction Equivalence to Fractions Greater than 1	4.NF.A.1 Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × 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 fractions 4.NF.A.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 the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model. 4.NF.B.3 Understand a fraction a/b with a > 1 as a sum of fractions 1/b. A. 4.NF.B.3.a Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	Topic A-Parent Tips English Spanish Topic B-Parent Tips English Spanish Topic C-Parent Tips English Spanish Topic D-Parent Tips English Spanish Topic E-Parent Tips English Spanish

Topic F: Addition and Subtraction of Fractions by Decomposition Topic G: Repeated Addition of Fractions as Multiplication Topic H: Exploring a Fraction Pattern	4.NF.B.3.b Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. 4.NF.B.3.c Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. 4.NF.B.4.a Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4). 4.NF.B.3.d Solve 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. 4.MD.B.4 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection. 4.OA.C.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. 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 alternate in this way.	Topic F-Parent Tips English Spanish Topic G-Parent Tips English Spanish Topic H-Parent Tips English Spanish
Module 6: Decimal Fractions		Student and Teacher Videos
Topic A: Exploration of Tenths	4.NF.C.5 Express a fraction with denominator 10 as an equivalent fraction with denominator	Topic A-Parent Tips

Topic B: Tenths and Hundredths Topic C: Decimal Comparison Topic D: Addition with Tenths and Hundredths Topic E: Money Amounts as Decimal Numbers	100, and use this technique to add two fractions with respective denominators 10 and 100.4 For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100. 4.NF.C.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram. 4.NF.C.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. 4.MD.A.2 Use 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. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	English Spanish Topic B-Parent Tips English Spanish Topic C-Parent Tips English Spanish Topic D-Parent Tips English Spanish Topic E-Parent Tips English Spanish
Module 7: Exploring Measurement with Multiplication		Student and Teacher Videos
Topic A: Measurement Conversion Tables Topic B: Problem Solving with Measurement Topic C: Investigation of Measurements Expressed as Mixed Numbers Topic D: Year in Review	4.MD.A.1 Know 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, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two- column table. 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), ... 4.MD.A.2 Use 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	Topic A-Parent Tips English Spanish Topic B-Parent Tips English Spanish Topic C-Parent Tips English Spanish Topic D-Parent Tips English Spanish

	expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. 4.OA.A.1 Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. 4.OA.A.2 Multiply or divide 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. 4.OA.A.3 Use 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. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	