



5th Grade Math Curriculum Map

Last Updated: October 22, 2024

Quarter 1		
Essential Question/Topic	Standards	Parent Resources
<p>Module 1 - Place Value and Decimal Fractions</p> <p>Topic A - Multiplicative Patterns on the Place Value Chart</p> <p>Topic B - Decimal Fractions and Place Value Patterns</p> <p>Topic C - Place Value and Rounding Decimal Fractions</p> <p>Topic D - Adding and Subtracting Decimals</p> <p>Topic E - Multiplying Decimals</p> <p>Topic F - Dividing Decimals</p>	<p>5.NBT.1 - Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p>5.NBT.2 - Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</p> <p>5.NBT.3 - Read, write, and compare decimals to thousandths.</p> <p>5.NBT.4 - Use place value understanding to round decimals to any place.</p> <p>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.</p> <p>5.MD.1 - Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.</p>	<p>IXL Skill Plan / Arena</p> <p>IXL Family Guide</p> <p>Topic A Parent Tips Spanish</p> <p>Topic B Parent Tips Spanish</p> <p>Topic C Parent Tips Spanish</p> <p>Topic D Parent Tips Spanish</p> <p>Topic E Parent Tips Spanish</p> <p>Topic F Parent Tips Spanish</p>
<p>Module 2 - Multi-Digit Whole Numbers and Decimal Fractions Operations</p> <p>Topic A - Mental Strategies for Multi-Digit Whole Number Multiplication</p>	<p>5.NBT.A.1 - Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p>5.NBT.A.2 - Explain patterns in the number of</p>	<p>IXL Skill Plan / Arena</p> <p>Topic A Parent Tips Spanish</p> <p>Topic B Parent Tips Spanish</p>



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<p>Topic B - The Standard Algorithm</p>	<p>zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.A.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.</p> <p>5.OA.A.1 - Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>5.OA.A.2 - Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</p>	
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Quarter 2		
Essential Question/Topic	Standards	Parent Resources
<p>Module 2 - Multi-Digit Whole Numbers and Decimal Fractions Operations</p> <p>Topic C - Decimal Multi-Digit Multiplication</p> <p>Topic D - Measurement Word Problems with Whole Number and Decimal Multiplication</p>	<p>5.NBT.A.1 - Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p>5.NBT.A.2 - Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided</p>	<p>IXL Skill Plan / Arena</p> <p>Topic C Parent Tips Spanish</p> <p>Topic D Parent Tips Spanish</p> <p>Topic E Parent Tips Spanish</p>



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<p>Topic E - Mental Strategies for Multi-Digit Whole Number Division</p> <p>Topic F - Partial Quotients and Multi-Digit Whole Number Division</p> <p>Topic G - Partial Quotients and Multi-Digit Decimal Division</p> <p>Topic H - Measurement Word Problems with Multi-Digit Division</p>	<p>by a power of 10. Use whole-number exponents to denote powers of 10.</p> <p>5.NBT.B.5 - Fluently multiply multi-digit whole numbers using the standard algorithm.</p> <p>5.NBT.A.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.</p> <p>5.OA.A.1 - Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>5.OA.A.2 - Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</p>	<p>Topic F Parent Tips Spanish</p> <p>Topic G Parent Tips Spanish</p> <p>Topic H Parent Tips Spanish</p>
<p>Module 3 - Addition and Subtraction of Fractions</p> <p>Topic A - Equivalent Fractions</p> <p>Topic B - Making Like Units Pictorially</p> <p>Topic C - Making Like Units Numerically</p> <p>Topic D - Further Applications</p>	<p>5.NF.A.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. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$. (In general, $\frac{a}{b} + \frac{c}{d} = \frac{ad+bc}{bd}$.)</p> <p>5.NF.A.2 - Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$, by observing that $\frac{3}{7} < \frac{1}{2}$.</p>	<p>IXL Skill Plan / Arena</p> <p>Topic A Parent Tips Spanish</p> <p>Topic B Parent Tips Spanish</p> <p>Topic C Parent Tips Spanish</p> <p>Topic D Parent Tips Spanish</p>



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	<p>4.NF.A.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 fractions.</p> <p>4.NF.3.b - Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>4.NF.B.4.a - Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>4.NF.B.4.b - Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p>	
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Quarter 3		
Essential Question/Topic	Standards	Parent Resources
<p>Module 4 - Multiplication and Division of Fractions and Decimal Fractions</p> <p>Topic A - Line Plots of Fraction Measurements</p> <p>Topic B - Fractions as Division</p> <p>Topic C - Multiplication of a Whole Number by a Fraction</p> <p>Topic D - Fraction Expressions and Word Problems</p> <p>Topic E - Multiplication of a Fraction by a Fraction</p> <p>Topic F - Multiplication with Fractions and Decimals as Scaling and Word Problems</p> <p>Topic G - Division of Fractions and Decimal Fractions</p>	<p>5.MD.B.2 - Make a line plot to display a data set of measurements in fractions of a unit ($1/2$, $1/4$, $1/8$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</p> <p>5.NF.B.3 - Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). 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. For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person</p>	<p>IXL Skill Plan / Arena</p> <p>Topic A Parent Tips Spanish</p> <p>Topic B Parent Tips Spanish</p> <p>Topic C Parent Tips Spanish</p> <p>Topic D Parent Tips Spanish</p> <p>Topic E Parent Tips Spanish</p> <p>Topic F Parent Tips Spanish</p> <p>Topic G Parent Tips Spanish</p> <p>Topic H Parent Tips Spanish</p>



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<p>Topic H - Interpretation of Numerical Expressions</p>	<p>get? Between what two whole numbers does your answer lie?</p> <p>5.MD.A.1 - Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.</p> <p>5.NF.B.4.a - Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>5.NF.B.6 - Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>5.OA.A.1 - Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>5.OA.A.2 - Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8+7)$. Recognize that $3 \times (18932+921)$ is three times as large as $18932+921$, without having to calculate the indicated sum or product.</p> <p>5.NBT.B.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.</p> <p>5.NF.B.5 - Interpret multiplication as scaling.</p> <p>5.NF.B.7.c - Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>	
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Quarter 4		
Essential Question/Topic	Standards	Parent Resources
<p>Module 5 - Addition and Multiplication with Volume and Area</p> <p>Topic A - Concepts of Volume</p> <p>Topic B - Volume and the Operations of Multiplication and Addition</p> <p>Topic C - Area of Rectangular Figures with Fractional Side Lengths</p> <p>Topic D - Drawing, Analysis, and Classification of Two-Dimensional Shapes</p>	<p>5.MD.C.3 - Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p>5.MD.C.5 - Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>5.NF.B.4 - Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>5.NF.B.6 - Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>5.G.B.3 - Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p> <p>5.G.B.4 - Classify two-dimensional figures in a hierarchy based on properties.</p>	<p>IXL Skill Plan / Arena</p> <p>Topic A Parent Tips Spanish</p> <p>Topic B Parent Tips Spanish</p> <p>Topic C Parent Tips Spanish</p> <p>Topic D Parent Tips Spanish</p>
<p>Module 6 - Problem Solving with Coordinate Plane</p> <p>Topic A - Coordinate Systems</p> <p>Topic B - Patterns in the Coordinate Plane and Graphing Number Patterns from Rules</p> <p>Topic C - Drawing Figures in the Coordinate Plane</p> <p>Topic D - Problem Solving in the Coordinate Plane</p> <p>Topic E - Multi-Step Word Problems</p>	<p>5.G.A.1 - Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. 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, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).</p> <p>5.OA.A.2 - Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation</p>	<p>Topic A Parent Tips Spanish</p> <p>Topic B Parent Tips Spanish</p> <p>Topic C Parent Tips Spanish</p> <p>Topic D Parent Tips Spanish</p> <p>Topic E Parent Tips Spanish</p> <p>Topic F Parent Tips Spanish</p>



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<p>Topic F - The Year in Review: A Reflection on A Story of Units</p>	<p>“add 8 and 7, then multiply by 2” as $2 \times (8+7)$. Recognize that $3 \times (18932+921)$ is three times as large as $18932+921$, without having to calculate the indicated sum or product.</p> <p>5.OA.B.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. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</p> <p>5.G.A.2 - Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>	
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