

Month(s)	Domain(s)	Topics	New York Grade 5 Cluster(s)	Topic Essential Questions	Goals/Next Generation Learning Standards	Assessments
<p><b>September- November</b> <i>Units 1-3</i></p>	<p>Number and Operations in Base Ten</p>	<p>-Understand Place Value (Topic 1) - Add and subtract decimals to hundredths (Topic 2) -Fluently Multiply Multi-Digit Whole Numbers (Topic 3) -Use Models and Strategies to Multiply Decimals (Topic4) -Use Models and Strategies to Divide Whole Numbers (Topic 5) -Use Models and Strategies to Divide Decimals (Topic 6)</p>	<p>Understand the place value system.  Perform operations with multi-digit whole numbers and with decimals to hundredths.</p>	<p><b>Topic 1:</b> How are whole numbers and decimals written, compared, and ordered? <b>Topic 2:</b> How can sums and differences of decimals be estimated? What are the standard procedures for adding and subtracting decimals? How can sums and differences be found mentally? <b>Topic 3:</b> What are the standard procedures for estimating and finding products of multi-digit numbers? <b>Topic 4:</b> What are the standard procedures for estimating and finding products involving decimals? <b>Topic 5:</b> What is the standard procedure for division and why does it work? <b>Topic 6:</b> What are the standard procedures for estimating and finding quotients involving decimals?</p>	<p><b>Understand the place value system.</b> NY-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 <math>\frac{1}{10}</math> of what it represents in the place to its left. NY-5.NBT.2 Use whole-number exponents to denote powers of 10. 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. NY-5.NBT.3a Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form. NY-5.NBT.3b. Compare two decimals to thousandths based on meanings of the digits in each place, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons. NY-5.NBT.4 Use place value understanding to round decimals to any place. <b>Perform operations with multi-digit whole numbers and with decimals to hundredths.</b> NY-5.NBT.5 Fluently multiply multi-digit whole numbers using a standard algorithm. NY-5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-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. NY-5.NBT.7 Using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between operations: add and subtract decimals to hundredths; multiply and divide decimals to hundredths. Relate the strategy to a written method and explain the reasoning used.</p>	<p>Beginning of the Year Baseline Assessment Review What You Know Daily Review Today's Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the week</p>

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<p><b>December-January</b>  <i>Unit 4</i></p>	<p>Number and Operations-Fractions</p>	<p>-Use Equivalent Fractions to Add and Subtract Fractions (Topic 7) -Apply Understanding of Multiplication to multiply Fractions (Topic 8) -Apply Understanding of Division to Divide Fractions (Topic9)</p>	<p>Use Equivalent fractions as a strategy to add and subtract fractions. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p>	<p><b>Topic 7:</b> How can sums and differences of fractions and mixed numbers be estimated? What are standard procedures for adding and subtracting fractions and mixed numbers? <b>Topic 8:</b> What does it mean to multiply whole numbers and fractions? How can multiplication with whole numbers and fractions be shown using models and symbols? <b>Topic 9:</b> How are fractions related to division? How can you divide with whole numbers and unit fractions?</p>	<p><b>Use equivalent fractions as a strategy to add and subtract fractions.</b> NY-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. NY-5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <b>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</b> NY-5.NF.3 Interpret a fraction as division of the numerator by the denominator (<math>\frac{a}{b} = a \div b</math>). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers. NY-5.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number or a fraction. NY-5.NF.4a Interpret the product <math>\frac{a}{b} \times q</math> as <math>a</math> parts of a partition of <math>q</math> into <math>b</math> equal parts; equivalently, as the result of a sequence of operations <math>a \times q \div b</math>. NY-5.NF.4b Find the area of a rectangle with fractional side lengths by tiling it with rectangles of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. NY-5.NF.5a Compare the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. NY-5.NF.5b Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case). Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number. Relate the principle of fraction equivalence <math>\frac{a}{b} = \frac{a \times n}{b \times n}</math> to the effect of multiplying <math>\frac{a}{b}</math> by 1. NY-5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers. NY-5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. NY-5.NF.7a Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. NY-5.NF.7b Interpret division of a whole number by a unit fraction, and compute such quotients. NY-5.NF.7c Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions.</p>	<p>Review What You Know Daily Review Today’s Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Week</p>

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January <i>Unit 4</i>	Measurement & Data	-Represent and Interpret Data (Topic 12)	Represent and Interpret Data	<b>Topic 12:</b> How can line plots be used to represent data and answer questions?	<b>Use equivalent fractions as a strategy to add and subtract fractions.</b> NY-5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <b>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</b> NY-5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers. NY-5.NF.7c Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions. <b>Represent and Interpret Data</b> NY-5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit $(\frac{1}{2}, \frac{1}{4}, \frac{1}{8})$ . Use operations on fractions for this grade to solve problems involving information presented in line plots.	Review What You Know Daily Review Today's Challenge Quick Check Convince Me! Chapter Review/Assessment
February <i>*Stand-alone topic</i>	Operations and Algebraic Thinking	-Algebra: Write and Interpret Numerical Expressions (Topic 13)	Write and interpret numerical expressions	<b>Topic 13:</b> How is the value of a numerical expression found?	<b>Write and interpret numerical expressions.</b> NY-5.OA.1 Apply the order of operations to evaluate numerical expressions. NY-5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	Review What You Know Daily Review Today's Challenge Quick Check Convince Me! Problem of the Week
February <i>Unit 5</i>	Geometry  Measurement and Data	-Geometric Measurement: Classify Two-Dimensional Figures (Topic 16)  -Understand Volume Concepts (Topic 10)	Classify 2-dimensional figures into categories based on their properties  Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	<b>Topic 16:</b> How can triangles and quadrilaterals be described, classified, and named?  <b>Topic 10:</b> What is the meaning of volume of a solid? How can the volume of a rectangular prism be found?	<b>Classify two-dimensional figures into categories based on their properties.</b> NY-5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. NY-5.G.4 Classify two-dimensional figures in a hierarchy based on properties. <b>Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.</b> NY-5.MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement. NY-5.MD.3a Recognize that a cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume NY-5.MD.3b Recognize that a solid figure which can be packed without gaps or overlaps using $n$ unit cubes is said to have a volume of $n$ cubic units. NY-5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and improvised units. NY-5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. NY-5.MD.5a Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. NY-5.MD.5b Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems. NY-5.MD.5c Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.	Middle of the Year Baseline Review What You Know Daily Review Today's Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Week

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<p><b>March</b></p> <p><i>Unit 6</i></p>	Measurement and Data	-Convert Measurements (Topic 11)	Convert like measurement units within a given measurement system.	<p><b>Topic 11:</b> What are customary measurement units and how are they related? What are metric measurement units and how are they related?</p>	<p><b>Convert like measurement units within a given measurement system.</b> NY-5.MD.1 Convert among different-sized standard measurement units within a given measurement system when the conversion factor is given. Use these conversions in solving multi-step, real world problems. <b>Perform operations with multi-digit whole numbers and with decimals to hundredths.</b> NY-5.NBT.5 Fluently multiply multi-digit whole numbers using a standard algorithm. NY-5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-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.</p>	<p>Review What You Know Daily Review Today’s Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Week</p>
<p><b>April-May</b></p> <p><i>Unit 7</i></p>	<p>Geometry</p> <p>Operations and Algebraic Thinking</p>	<p>-Graph points on the coordinate plane (Topic 14)</p> <p>-Algebra: Analyze patterns and relationships (Topic 15)</p>	<p>Graph points on the coordinate plane to solve real-world and mathematical problems. Analyze patterns and relationships.</p>	<p><b>Topic 14:</b> How are points plotted? How are relationships shown on a graph?</p> <p><b>Topic 15:</b> How can number patterns be analyzed and graph? How can number patterns and graphs be used to solve problems?</p>	<p><b>Graph points on the coordinate plane to solve real-world and mathematical problems.</b> NY-5.G.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. NY-5.G.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. <b>Analyze patterns and relationships.</b> NY-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>Review What You Know Daily Review Today’s Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Week</p>
<b>June</b>	Review of all domains	<p>Envision 2.0 Year-Long Review</p> <p>Stepping up to 6<sup>th</sup> grade</p>	N/A	<p><b>Topic 14:</b> How can we review what we have learned this year and apply it to real world situations? How can we relate topics learned in 5<sup>th</sup> grade to make connections to 6<sup>th</sup> grade concepts?</p>	<b>Review of all previous listed standards</b>	<p>End of the Year Baseline Review What You Know Daily Review Quick Check Convince Me!</p>