

Month(s)	Domain(s)	Topics	New York Grade 4 Cluster(s)	Topic Essential Questions	Goals/Next Generation Learning Standards	Assessments
	Number and Operations in Base Ten	-Generalize Place Value (Topic 1)	Generalize place value understanding for multi-digit whole numbers.	<p>Topic 1: How are greater numbers written? How can whole numbers be compared? How are place values related?</p>	<p>Generalize place value understanding for multi-digit whole numbers. NY-4.NBT.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. NY-4.NBT.2a. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. NY-4.NBT.2b. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. NY-4.NBT.3. Use place value understanding to round multi-digit whole numbers to any place.</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 Month
	Number and Operations in Base Ten	-Fluently Add and Subtract with Multi-Digit Whole Numbers (Topic 2) -Use Strategies and Properties to Multiply by 1-Digit Numbers (Topic 3) -Use Strategies and Properties to Multiply by 2-Digit Numbers (Topic 4) -Use Strategies and Properties to Divide by 1-Digit Numbers (Topic 5)	Use place value understanding and properties of operations to perform multi-digit arithmetic.	<p>Topic 2: How can sums and differences of whole numbers be estimated? What are standard procedures for adding and subtracting whole numbers?</p> <p>Topic 3: How can you multiply by multiples of 10, 100 and 1,000? How can you estimate when you multiply?</p> <p>Topic 4: How can you use a model to multiply? How can you use the Distributive Property to multiply? How can you use multiplication to solve problems?</p> <p>Topic 5: How can mental math be used to divide? How can quotients be estimated? How can the steps for dividing be explained?</p>	<p>Use place value understanding and properties of operations to perform multi-digit arithmetic. NY-4.NBT.4 Fluently add and subtract multi-digit whole numbers using a standard algorithm. Use place value understanding and properties of operations to perform multi-digit arithmetic. NY-4.NBT.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. NY-4.NBT.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. Use the four operations with whole numbers to solve problems NY-4.OA.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. NY-4.OA.3a Represent these problems using equations or expressions with a letter standing for the unknown quantity. NY-4.OA.3b Assess the reasonableness of answers using mental computation and estimation strategies including rounding. Gain familiarity with factors and multiples. NY-4.OA.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.</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 Month

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	Operations and Algebraic Thinking	-Use Operations with Whole Numbers to Solve Problems (Topic 6) -Factors and Multiples (Topic 7)	Use the four operations with whole numbers to solve problems. Gain familiarity with factors and multiples.	Topic 6: How is comparing with multiplication different from comparing with addition? How can you use equations to solve multi-step problems? Topic 7: How can you use arrays or multiplication to find the factors of a number? How can you identify prime and composite numbers? How can you find multiples of a number?	Use the four operations with whole numbers to solve problems. NY-4.OA.1 Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. NY-4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. Use drawings and equations with a symbol for the unknown number to represent the problem. NY-4.OA.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. NY-4.OA.3a Represent these problems using equations or expressions with a letter standing for the unknown quantity. Gain familiarity with factors and multiples. NY-4.OA.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 Use place value understanding and properties of operations to perform multi-digit arithmetic. NY-4.NBT.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. NY-4.NBT.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.	Review What You Know Daily Review Today’s Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Month

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	Number and Operations-Fractions	-Extend Understanding of Fraction Equivalence and Ordering (Topic 8) -Understand Addition and Subtraction of Fractions (Topic 9) -Extend Multiplication Concepts to Fractions (Topic 10) -Understand and Compare Decimals (Topic 12)	Extend understanding of fraction equivalence and ordering. Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers. Understand decimal notation for fractions, and compare decimal fractions.	Topic 8: What are some ways to name the same part of a whole? How can you compare fractions with unlike denominators? Topic 9: How do you add and subtract fractions and mixed numbers with like denominators? How can fractions be added and subtracted on a number line? Topic 10: How can you describe a fraction using a unit fraction? How can you multiply a whole number by a mixed number? Topic 12: How can you write a fraction as a decimal? How can you locate points on a number line? How do you compare decimals?	Extend understanding of fraction equivalence and ordering. NY-4.NF.1 Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{a \times n}{b \times n}$ 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. NY-4.NF.2 Compare two fractions with different numerators and different denominators. 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. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. NY-4.NF.3 Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$. NY-4.NF.3a Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. NY-4.NF.3b 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. NY-4.NF.3c Add and subtract mixed numbers with like denominators. NY-4.NF.3d Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators. NY-4.NF.4 Apply and extend previous understandings of multiplication to multiply a whole number by a fraction. NY-4.NF.4a Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$. NY-4.NF.4b Understand a multiple of $\frac{a}{b}$ as a multiple of $\frac{1}{b}$, and use this understanding to multiply a whole number by a fraction. NY-4.NF.4c Solve word problems involving multiplication of a whole number by a fraction. Understand decimal notation for fractions, and compare decimal fractions. NY-4.NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. NY-4.NF.6 Use decimal notation for fractions with denominators 10 or 100. NY-4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. NY-4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money.	Review What You Know Daily Review Today's Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Month

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	Measurement and Data	-Geometric Measurement: Understand Concepts of Angles and Angle Measurement (Topic 15)	Geometric measurement: understand concepts of angle and measure angles.	<p>Topic 15: What are some common geometric terms? How can you measure angles?</p>	<p>Geometric measurement: understand concepts of angle and measure angles. NY-4.MD.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. NY-4.MD.5a Recognize an angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles. NY-4.MD.5b Recognize an angle that turns through n one-degree angles is said to have an angle measure of n degrees. NY-4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. NY-4.MD.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. Draw and identify lines and angles, and classify shapes by properties of their lines and angles NY-4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. NY-4.NF.3 Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$. NY-4.NF.3a Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</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 Month</p>

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	Geometry	-Lines, Angles and Shapes (Topic 16)	Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	Topic 16: How can you classify triangles and quadrilaterals? What is line symmetry?	Generate and analyze patterns. NY-4.OA.5 Generate a number or shape pattern that follows a given rule. Identify and informally explain apparent features of the pattern that were not explicit in the rule itself.	Review What You Know Daily Review Today’s Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Month
	Measurement and Data	-Represent and Interpret Data on Line Plots (Topic 11) -Measurement: Find Equivalence in Units of Measurement (Topic 13)	Represent and interpret data. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	Topic 11: How can you read data on a line plot? How can you make a line plot? Topic 13: How can you convert from one unit to another? How can you be precise when solving math problems?	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. NY-4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money. NY-4.MD.2b Represent measurement quantities using diagrams that feature a measurement scale, such as number lines Represent and interpret data. NY-4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}, \frac{1}{4}, \frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots. Extend understanding of fraction equivalence and ordering. NY-4.NF.1 Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{a \times n}{b \times n}$ 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. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. NY-4.NF.3 Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$. NY-4.NF.3c Add and subtract mixed numbers with like denominators NY-4.NF.3d Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators.	Review What You Know Daily Review Today’s Challenge Quick Check Convince Me! Chapter Review/Assessment Performance Task (1 per trimester) Problem of the Month

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	Operations and Algebraic Thinking	-Algebra: Generate and Analyze Patterns (Topic 14)	Generate and analyze patterns.	Topic 14: How can you use a rule to continue a pattern? How can you use a table to extend a pattern? How can you use a repeating pattern to predict a shape?	Generate and analyze patterns. NY-4.OA.5 Generate a number or shape pattern that follows a given rule. Identify and informally explain apparent features of the pattern that were not explicit in the rule itself.	End 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 Month