

Unit 1: Operations and Properties				
Unit	Mathematics Common Core Domain	Mathematics Common Core Cluster	Mathematics Common Core Standard	Resources
1	Number System	Compute fluently with multi-digit numbers and find common factors and multiples	NS.6.2 Fluently divide multi-digit numbers using the standard algorithm.	Explorations in Core Math for Common Core Chapter 1-1, 1-2
1	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.1 Write and evaluate numerical expressions involving whole-number exponents.	Explorations in Core Math for Common Core Chapter 1-3
1	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.2.a Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation "Subtract y from 5" as $5 - y$.	Explorations in Core Math for Common Core Chapter 1-4
1	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.2.c Evaluate expressions at specific values for their variables. Include expressions that arise from formulas in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.	Explorations in Core Math for Common Core Chapter 1-4
1	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.3 Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$.	Explorations in Core Math for Common Core Chapter 1-5
Unit 2: Decimals				
2	Number System	Compute fluently with multi-digit numbers and find common factors and multiples	NS.6.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	Explorations in Core Math for Common Core Chapter 3-2 to 3-7
2	Number System	Compute fluently with multi-digit numbers and find common factors and multiples	NS.6.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C .	Explorations in Core Math for Common Core Chapter 3-1
2	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.	Explorations in Core Math for Common Core Chapter 3-8
Unit 3: Data Collection and Analysis				

3	Statistics & Probability	Develop understanding of statistical variability	SP.6.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.	Explorations in Core Math for Common Core Chapter 6-4
3	Statistics & Probability	Develop understanding of statistical variability	SP.6.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	Explorations in Core Math for Common Core Chapter 6-1
3	Statistics & Probability	Summarize and describe distributions	SP.6.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	Explorations in Core Math for Common Core Chapter 6-3 & 6-4
3	Statistics & Probability	Summarize and describe distributions	SP.6.5c Summarize numerical data sets in relation to their context, such as by: -- c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data was gathered.	Explorations in Core Math for Common Core Chapter 6-2, 6-3, 6-5
3	Statistics & Probability	Summarize and describe distributions	SP.6.5d Summarize numerical data sets in relation to their context, such as by: – d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.	Explorations in Core Math for Common Core Chapter 6-1
Unit 4: Number Theory and Fractions				
4	Number System	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	NS.6.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?	Explorations in Core Math for Common Core Chapter 4-6

4	Number System	Compute fluently with multi-digit numbers and find common factors and multiples	NS.6.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$.	Explorations in Core Math for Common Core Chapter 4-1, 4-2, 4-5
4	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.6.c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.	Explorations in Core Math for Common Core Chapter 4-4
4	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.7 Understand ordering and absolute value of rational numbers.	Explorations in Core Math for Common Core Chapter 4-7
4	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.2.b Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.	Explorations in Core Math for Common Core Chapter 4-3
4	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.	Explorations in Core Math for Common Core Chapter 4-3
4	Ratios & Proportional Relationships	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.2b Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient): View one or more parts of an expression as a single entity. For example, describe the expression $2(8+7)$ as a product of two factors: view $(8+7)$ as both a single entity and a sum of two terms.	Explorations in Core Math for Common Core Chapter 4-3
Unit 5: Fraction Operations				
5	Number System	Apply and extend previous understandings of multiplication and division to divide fractions by fractions	NS.6.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?	Explorations in Core Math for Common Core Chapter 5-5, 5-6

5	Number System	Compute fluently with multi-digit numbers and find common factors and multiples	NS.6.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$.	Explorations in Core Math for Common Core Chapter 5-1, 5-2
5	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.	Explorations in Core Math for Common Core Chapter 5-3, 5-4, 5-7
Unit 6: Proportional Relationships				
6	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."	Explorations in Core Math for Common Core Chapter 7-1
6	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.2 Understand ratio concepts and use ratio reasoning to solve problems. Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$ (b not equal to zero), and use rate language in the context of a ratio relationship. For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar." "We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger." (Expectations for unit rates in this grade are limited to non-complex fractions.)	Explorations in Core Math for Common Core Chapter 7-1
6	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	Explorations in Core Math for Common Core Chapter 7-1
6	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	Explorations in Core Math for Common Core Chapter 7-2, 7-3
6	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3.b Solve unit rate problems including those involving unit pricing and constant speed. For example, If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?	Explorations in Core Math for Common Core Chapter 7-1
6	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3.c Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $\frac{30}{100}$ times the quantity): Solve problems involving finding the whole, given a part and the percent.	Explorations in Core Math for Common Core Chapter 7-5, 7-6, 7-7, 7-8
Unit 7: Introduction to Algebra				

7	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.2.a Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as $5 - y$.	Explorations in Core Math for Common Core Chapter 2-2, 2-3
7	Expressions & Equations	Apply and extend previous understandings of arithmetic to algebraic expressions	EE.6.2.c Evaluate expressions at specific values for their variables. Include expressions that arise from formulas in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.	Explorations in Core Math for Common Core Chapter 2-1
7	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	Explorations in Core Math for Common Core Chapter 2-4
7	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	Explorations in Core Math for Common Core Chapter 2-4, 2-5, 2-6, 2-7, 2-8
7	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	Explorations in Core Math for Common Core Chapter 2-5, 2-6, 2-7, 2-8
Unit 8: Measurement and Geometry				
8	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3.d Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	Explorations in Core Math for Common Core Chapter 8-1, 8-2
8	Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	G.6.1 Solve real-world and mathematical problems involving area, surface area, and volume. Find area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	Explorations in Core Math for Common Core Chapter 8-3, 8-4, 8-5
8	Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	G.6.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = lwh$ and $V = bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	Explorations in Core Math for Common Core Chapter 8-6

8	Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	G.6.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	Explorations in Core Math for Common Core Chapter 8-7
8	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.2.c Evaluate expressions at specific values for their variables. Include expressions that arise from formulas in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = \frac{1}{2}$.	Explorations in Core Math for Common Core Chapter 8-3
Unit 9: Integers and the Coordinate Plane				
9	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.5 Apply and extend previous understandings of numbers to the system of rational numbers. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, debits/credits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	Explorations in Core Math for Common Core Chapter 9-1
9	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.6.a Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite.	Explorations in Core Math for Common Core Chapter 9-1
9	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.6.b Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.	Explorations in Core Math for Common Core Chapter 9-3, 9-5
9	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.7.a Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.	Explorations in Core Math for Common Core Chapter 9-2
9	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.7b Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ}\text{C} > -7^{\circ}\text{C}$ to express the fact that -3°C is warmer than -7°C .	Explorations in Core Math for Common Core Chapter 9-2
9	Number System	Apply and extend previous understandings of numbers to the system of rational numbers	NS.6.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	Explorations in Core Math for Common Core Chapter 9-3, 9-4

9	Geometry	Solve real-world and mathematical problems involving area, surface area, and volume	G.6.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	Explorations in Core Math for Common Core Chapter 9-4
Unit 10: Functions				
10	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	Explorations in Core Math for Common Core Chapter 10-4
10	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	Explorations in Core Math for Common Core Chapter 10-4
10	Expressions & Equations	Reason about and solve one-variable equations and inequalities	EE.6.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	Explorations in Core Math for Common Core Chapter 10-4
10	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	Explorations in Core Math for Common Core Chapter 10-3
10	Ratios & Proportional Relationships	Understand ratio concepts and use ratio reasoning to solve problems	RP.6.3a Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	Explorations in Core Math for Common Core Chapter 10-3