Common Core Curriculum Map: 6th grade

UNIT 1: Factors, Multiples, Integers, and Rational Numbers	
Unit 1a: Integers	
Classifying Rational Numbers *I can extend number line diagrams and coordinate axes to represent points on the line and plane with negative number coordinates.*	6.NS.6
Identifying Integers and Their Opposites *I can use positive and negative numbers to represent quantities in real world situations (above/below sea level, etc.)* *I can describe quantities of positive and negative numbers as having opposite directions or values.*	6.NS.5
Comparing and Ordering Integers *I can write, interpret, and explain statements of order for rational numbers in real-world contexts.* *I can recognize the signs of both numbers in an ordered pair indicate which quadrant of the coordinate plane the ordered pair will be located.*	6.NS.7b
Absolute Value *I can find and position pairs of integers and other rational numbers on a coordinate plane.* *I can interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.* *I can understand the absolute value of a rational number as its distance from 0 on the number line.* *I can find and position integers and other rational numbers on a horizontal or vertical number line diagram.* *I can distinguish comparisons of absolute value from statements about order.*	6.NS.7c-d
Identifying Opposites and Absolute Value of Rational Numbers *I can find and position integers and other rational numbers on a horizontal or vertical number line diagram.*	6.NS.6c
Comparing and Ordering Rational Numbers *I can demonstrate understanding of ordering and absolute value of rational numbers.* *I can interpret inequality statements as relative position of two numbers on a number line.* *I can recognize opposite signs of numbers as locations on opposite sides of 0 on the number line.*	6.NS.7a
Unit 1b: Factors and Multiples	
Exponents *I can write and evaluate numerical expressions involving whole number exponents.*	
Prime Factorization *I can write and evaluate numerical expressions involving whole number exponents.*	
Greatest Common Factor *I can identify the factors of two whole numbers less than or equal to 100 and determine the Greatest Common Factor.*	
Least Common Multiple *I can identify the multiples of two whole numbers less than or equal to 12 and determine the Least Common Multiple.*	
Distributive Property *I can apply the Distributive Property to rewrite addition problems by factoring out the Greatest Common Factor.*	
3 Modules, 3 Quizzes, 1 Common Assessment for Unit 1	
Unit 1C: Rational Numbers	
Unit 2 - Operations with Fractions and Decimals	
Unit 2a: Operations with Decimals	
Adding and Subtracting Decimals *I can fluently add and subtract decimals using the standard algorithm.*	6.NS.3
Multiplying Decimals *I can fluently multiply multi-digit decimals using the standard algorithm.*	6.NS.3
Dividing Whole Numbers *I can divide multi-digit numbers using the standard algorithm.*	6.NS.2
Dividing Decimals *I can fluently divide multi-digit decimals using the standard algorithm.*	6.NS.3
Unit 2b: Operations with Fractions	
Applying GCF and LCM to Fraction Operations (Addition, Subtraction, and Multiplication) *I can identify the factors of two whole numbers less than or equal to 100 and determine the Greatest Common*	6.NS.4

Factor. *I can apply the Distributive Property to rewrite addition problems by factoring out the Greatest Common Factor.* *I can identify the multiples of two whole numbers less than or equal to 12 and determine the Least Common Multiple*	
Dividing Fractions *I can solve word problems involving division of fractions by fractions.*	6.NS.1
Dividing Mixed Numbers *I can solve word problems involving division of fractions by fractions.*	6.NS.1
Unit 2c: Operations with Fractions & Decimals – Real-World Problems	
Solving Multistep Problems with Fractions and Mixed Numbers *I can solve word problems involving division of fractions by fractions.*	6.NS.1
Applying Operations with Rational Numbers (Real-World) *I can fluently add and subtract decimals using the standard algorithm.* *I can fluently multiply multi-digit decimals using the standard algorithm.* *I can fluently divide multi-digit decimals using the standard algorithm.*	6.NS.3
2 Modules, 2 Quizzes, 1 Common Assessment for Unit 2	
Unit 3: Ratios, Rates, Proportions, and Percents	
Unit 3a: Ratios & Rates	
Ratios *I can use ratio language to describe a relationship between two quantities.*	6.RP.1
Rates *I can convert between a ratio a:b and a unit rate a/b using rate language.*	6.RP.2
Using Ratios and Rates to Solve Problems *I can solve real-world and mathematical problems involving ratio and rates.*	6.RP.3b
Ratios, Rates, Tables, and Graphs *I can make a table of equivalent ratios using whole numbers* *I can find missing values in tables.* *I can use tables to compare ratios.* *I can plot pairs of values that represent equivalent ratios on the coordinate plane.*	6.RP.3a
Unit 3b: Proportions & Measurements	
Solving Problems with Proportions *I can use ratio and rate reasoning to solve real-world and mathematical problems.*	6.RP.3
Converting within Measurement Systems *I can convert measurements units using ratio reasoning. (ex. yards to feet)*	6.RP.3d
Converting between Measurement Systems *I can convert measurements units using ratio reasoning. (ex: inches to centimeter, yard to meter)*	6.RP.3d
Unit 3c: Percents	
Understanding Percents *I can solve real-world problems involving finding the whole, given a part and a percent* *I can find a percent of a quantity as a rate per 100.*	6.RP.3c
Percents, Fractions, and Decimals *I can use ratio and rate reasoning to solve real-world and mathematical problems.*	6.RP.3
Solving Percent Problems *I can find a percent of a quantity as a rate per 100.*	6.RP.3c
3 Modules, 3 Quizzes, 1 Common Assessment for Unit 3	
Unit 4: Writing and Solving Expressions and Equations	
Unit 4a: Generating Equivalent Algebraic Expressions	
Modeling and Writing Expressions *I can write, read, and evaluate expressions in which letters stand for numbers.*	6.EE.2-2a & 6

I can translate written phrases into algebraic expressions. *I can write and solve a real-world or mathematical problem using variables and expressions.*	
Evaluating Expressions *I can evaluate algebraic expressions including those that arise from real-world problems.* *I can identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient).*	6.EE.2b-c
Generating Equivalent Expressions *I can apply the properties of operations to generate equivalent expressions.* *I can identify when two expressions are equivalent.*	6.EE.3-4
Unit 4b: Equations & Relationships	
Order of Operations *I can write and evaluate numerical expressions involving whole number exponents.* *I can solve order of operation problems that contain exponents.*	6.EE.1 6.EE.2c
Writing Equations to Represent Situations *I can write and solve equations for real-world or mathematical problems.*	6.EE.7
Addition and Subtraction Equations *I can write and solve equations for real-world or mathematical problems.*	6.EE.7
Multiplication and Division Equations *I can use substitution to determine whether a given number in a specified set makes an equation true.* *I can use substitution to determine whether a given number in a specified set makes an inequality true.*	6.EE.5
Writing Inequalities *I can write inequalities for real-world or mathematical problems that represent constraints or conditions.*	6.EE.8
2 Modules, 2 Quizzes, 1 Common Assessment for Unit 4	
Unit 5 - Relationships in Two Variables	
Graphing on the Coordinate Plane *I can find and position pairs of integers and rational numbers on a coordinate plane.*	6.NS.6c
Independent and Dependent Variables in Tables and Graphs *I can use variables to represent two quantities in a real-world problem that change in relationship to one another.*	6.EE.9
Writing Equations from Tables *I can write an equation to express one quantity (dependent) in terms of the other quantity (independent).*	6.EE.9
Representing Algebraic Relationships in Tables and Graphs *I can analyze the relationship between the dependent variable and independent variable using tables, graphs, and equations.*	6.EE.9
2 Modules, 2 Quizzes, 1 Common Assessment for Unit 5	
Unit 6 - Area, Surface Area, and Volume	
Unit 6a: Area and Polygons	
Area of Quadrilaterals *I can apply the techniques of composing and/or decomposing to find the area of quadrilaterals to solve mathematical and real-world problems.*	6.G.1
Area of Triangles *I can apply the techniques of composing and/or decomposing to find the area of right triangles and other triangles to solve mathematical and real world problems.*	6.G.1
Solving Area Equations	6.G.1
Area of Polygons *I can apply the techniques of composing and/or decomposing to find the area of polygons to solve mathematical and real-world problems.*	6.G.1
Unit 6b: Distance and Area in the Coordinate Plane	

Distance in the Coordinate Plane *I can calculate the distances between two points with the same first coordinate or the same second coordinate using absolute value.*	6.NS.8
Polygons in the Coordinate Plane *I can use coordinates (with the same x-coordinate or the same y-coordinate) to draw polygons in the coordinate plane.* *I can use coordinates (with the same x-coordinate or the same y-coordinate) to find the length of a side of a polygon in the context of real-world and mathematical problems.*	6.G.3
Unit 6c: Surface Area and Volume of Solids	
Nets and Surface Area *I can use nets to find the surface area of three dimensional figures.* *I can construct a net of a three-dimensional figure using rectangles and triangles.*	6.G.4
Volume of Rectangular Prisms *I can model the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths.*	6.G.2
Solving Volume Equations *I can apply volume formulas for right rectangular prisms to solve real-world and mathematical problems involving rectangular prisms with fractional edge lengths.*	6.G.2
3 Modules, 3 Quizzes, 1 Common Assessment for Unit 6	
Unit 7: Displaying, Analyzing , Summarizing Data	
Unit 7a: Displaying & Analyzing Data	
Statistical Questioning *I can identify a statistical question and variability in related data.*	6.SP.1
Statistical Variability *I can recognize there are measures of central tendency for a data set that summarize the data set with a single number.* *I can recognize there are measures of variances for a data set that describes the data set with a single number.*	6.SP.3
Unit 7b: Summarizing Data	
Describing Distributions of Data *I can describe a set of data by its center, spread and overall shape.*	6.SP.2
Summarize and Describe Distributions (Measures of Center & Mean Absolute Deviation) *I can summarize numerical data by recording the number of observations.* *I can describe the data being collected, including how it was measured and its units of measurement.* *I can calculate quantitative measures of variance, e.g., range, interquartile range, mean, absolute deviation.* *I can describe any overall pattern and any striking deviations (outliers) from a numerical data set.* *I can calculate quantitative measures of center, e.g., mean, median, mode.* *I can choose the appropriate measure of center and variability to represent the data and justify why this measure is appropriate in terms of the context.*	6.SP.3 & 5c-d
Box Plots *I can display numerical data using box plots.*	6.SP.4
Dot Plots and Data Distribution *I can display numerical data using dot plots.*	6.SP.4
Histograms *I can display numerical data using histograms.*	6.SP.4
1 Modules, 1 Quiz, 1 Common Assessment for Unit 7	