

**Curriculum Map**  
**Year Long Theme: Power of Change**  
**Concept: 6th Grade**

	September	October	November	December	January	February	March	April	May	June
<b>Component</b>	Stage 1, Book 1: Decimals & Fractions Stage 1, Book 2: Introductory Algebra			Stage 1, Book 2: Introductory Algebra			Stage 1, Book 2: Introductory Algebra Stage 1, Book 3: Ratios, Rates, & Statistics	Stage 1, Book 3: Ratios, Rates, & Statistics		
<b>Topic</b>	Stage 1, Book 1: Decimals & Fractions Stage 1, Book 2: Introductory Algebra	Block 3: Understanding Fractions Block 4: Adding and Subtracting Fractions Block 5: Multiplying and Dividing Fractions	Block 5: Multiplying and Dividing Fractions Block 6: Area and Volume Block 1: Order of Operations	Block 1: Order of Operations Block 2: Algebraic Expressions	Block 2: Algebraic Expressions Block 3: Solving Equations	Block 3: Solving Equations Block 4: Integers and Functions	Block 4: Integers and Functions Block 1: Ratios and Conversions Block 2: Rates	Block 2: Rates Block 3: Percents and Probability	Block 3: Percent sand Probability Block 4: Statistics	Block 4: Statistics
<b>Topic Description</b>	Assign place value, round add and subtract. Multiply and divide 2 digit numbers, and decimals. Find, order, compare, and simplify equivalent fractions. Measure in centimeters and inches. Find area and perimeter with fractions, estimating products and quotients.			The four operations. Powers and exponents. Variables and expressions Simplifying algebraic expressions. The distributive property. Solving equations using mental math. The coordinate plane. Input-output tables. Graphing linear functions. Patterns and functions.			Ratios. Geometric sequences. Conversions. Repeating decimals and rounding. Rate problem solving. Comparing rates. Percents. Introduction to probabilities. Analyzing statistics.			
<b>NGSS AND CCSS ALIGNMENT</b>	Student will be able to multiply and divide fractions by fractions. They will solve multi-digit numbers and find common factors and multiples. Finally, they will solve real-world problems involving area, surface area, and volume.			Understand the system of rational numbers. Use arithmetic in algebraic expressions. Solve one variable equations. Analyze quantitative relationships between dependent and independent variables.			Use ratio reasonings to solve problems. Understand statistical variability. Summarize and describe distributions.			
<b>Essential Questions</b>	How do you add or subtract decimals?	How do you multiply and divide decimals? How do you find the least common multiple?	How do you add and subtract fractions? How do you multiply and divide fractions?	How do you find the area of composite figures? How do you find the volume with fractional dimensions?	How do you simplify expressions using the order of operations? How do you simplify algebraic expressions?	How do you solve equations using different methods? How do you graph linear functions?	How do you solve equations using different methods? How do you graph linear functions?	How do you convert customary measurements?	How do you find and use the mean absolute deviation to describe the spread of data?	How do you analyze how the characteristics of a data set affects the measure of center?

**Curriculum Map**  
**Year Long Theme: Power of Change**  
**Concept: 7th Grade**

	September	October	November	December	January	February	March	April	May	June
<b>Component</b>	Stage 2, Book 1: Rational Numbers & Equations		Stage 2, Book 1: Rational Numbers & Equations Stage 2, Book 2: Proportions & Probability	Stage 2, Book 2: Proportions & Probability			Stage 2, Book 2: Proportions & Probability Stage 2, Book 3: Shapes & Angles	Stage 2, Book 3: Shapes & Angles		
<b>Topic</b>	Block 1: Positive Rational Numbers Block 2: Integers	Block 2: Integers Block 3: Rational Number Operations Block 4: Solving Equations	Block 4: Solving Equations Block 1: Ratios & Rates	Block 1: Ratios & Rates	Block 2: Proportions & Similarity Block 3: Percents	Block 3: Percents Block 4: Probability & Random Sampling	Block 4: Probability & Random Sampling Block 5: Direct Variation Block 1: Angle Relationships	Block 1: Angle Relationships Block 2: Two-Dimensional Geometry	Block 2: Two-Dimensional Geometry Block 3: Surface Area & Volume	Block 3: Surface Area & Volume
<b>Topic Description</b>	Fractions/Decimals: Simplifying, mixed numbers and improper, adding and subtracting, multiplying and dividing. Order of operations. Estimating sums and differences. Rational numbers: adding and subtracting and multiplying and dividing.			Ratios. Unit rates. Figures: Similar and congruent. Percent of change and applications. Using probability to predict. Compound probabilities using lists, tree diagrams, and tables. Random sampling. Recognizing direct variation.			Angles: Measuring and naming, classifying, complementary and supplementary, vertical and adjacent. Drawing geometric shapes. Parts of a circle. Composite figures. Slicing solids. Surface area of prisms. Volume of prisms.			
<b>NGSS AND CCSS ALIGNMENT</b>	Add, subtract, multiply and divide rational numbers. Use operations to create equivalent expressions.			Use proportional relationships to solve real-world and mathematical problems. Use random sampling to infer about a population. Draw informal comparative inferences about two populations. Evaluate probability models.			Draw, and describe geometrical figures and describe the relationships between them. Solve problems involving angle measure, area, surface area, and volume.			
<b>Essential Questions</b>	How do you add, subtract, multiply, or divide mixed numbers?	How do you find the value of expressions using the order of operations?	How do you compute rates and ratios that include complex fractions?	How do you solve problems involving proportions?	How do you compare samples using measures of center and variability?	How do you write and graph direct variation equations?	How do you find the area of composite figures?	How do you find measures of angles of special triangles?	How do you determine the coordinates of an image after a rotation?	How do you find the volume of cylinders, cones, and spheres?

**Curriculum Map**  
**Year Long Theme: Power of Change**  
**Concept: 8th Grade**

	September	October	November	December	January	February	March	April	May	June	
<b>Component</b>	Stage 3, Book 1: Linear Equations				Stage 3, Book 2: Geometry Stage 3, Book 3: Functions & Data				Stage 3, Book3: Functions & Data This book is aligned to the Algebra I standards.		
<b>Topic</b>	Block 1: Expressions and Equations Block 2: Sequence and Slope	Block 2: Sequence and Slope Block 3: Using Linear Equations Block 4: Systems of Equations	Block 4: Systems of Equations Block 5: Two-Variable Data	Block 5: Two-Variable Data	Block 1: Angles & Triangles Block 2: The Pythagorean Theorem	Block 2: The Pythagorean Theorem Block 3: Transformations	Block 4: Exponents and Volume	Block 1: Introduction to Functions Block 2: Exponents and Functions	Block 2: Exponents and Functions Block 3: Quadratic Functions	Block 4: Measure of Center Block 5: Data Displays	
<b>Topic Description</b>	Order of operations. Evaluating expressions. Solving one, two, and multi-step equations. Solutions to linear equations. Recursive routines. Linear plots. Rate of change. The slope formula. Introduction to non-linear functions. Solving systems by: graphing, tables, substitution, elimination. Converting repeating decimals to fractions. Scatter plots and correlation. Five number summaries of data.				Perfect squares. Estimating square roots. The Pythagorean theorem. The distance formula. Reflections. Translations. Rotations. Dilations. Composition of transformations. Division properties of exponents. Science notation. Volume of cylinders, cones, spheres.				The real number system. Seeing structure in expressions. Reasoning with equations and inequalities. Interpreting functions. Linear, quadratic, and exponential models. Interpreting functions.		
<b>NGSS AND CCSS ALIGNMENT</b>	Solve linear equations and pairs of linear equations. Connect between proportional relationships, lines, and linear equations. Define, evaluate, and compare functions. Use functions to model relationships.				Understand existence of irrational numbers, and approximate them by rational numbers. Work with radicals and integer exponents. Understand and use the Pythagorean Theorem. Solve real-world problems involving volume of cylinders, cones, and spheres.				9th Grade- Quantities and Equations, Linear and Exponential Relationships, Descriptive Statistics, Expressions and Equations, Quadratics Functions and Modeling		
<b>Essential Questions</b>	What is the application of systems of equations in real-life situations?	How do you use data and graphs to show results?	How do you stretch and shrink graphs and write equations to represent the changes in the graph?	How do you apply the Pythagorean Theorem?	How do you determine the coordinates of an image after a rotation?	How do you solve inequalities with one variable?	How do you calculate slopes from graphs?	How do you solve problems involving exponential growth and decay?	How do you find the mean, median, and mode of data sets?	How do you choose appropriate data displays?	