

	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June
<b>Themes/ Essential Question</b>	<p><b>Making Sense of the World of Data:</b></p> <p>How can collecting, organizing and displaying data help us analyze information and make reasonable predictions and informed decisions?</p> <p>How do you make a decision?</p>	<p><b>Basic Geometry:</b></p> <p>How do geometric relationships &amp; measurements help us to solve problems and make sense of our world?</p>	<p><b>Geometry: Perimeter, Area, Volume</b></p> <p>How do geometric relationships and measurements help us to solve problems and make sense of our world?</p>	<p><b>Fractions and Decimals:</b></p> <p>How are quantitative relationships represented by numbers?</p> <p>How many parts make a whole?</p>	<p><b>Operations with Fractions:</b></p> <p>How are quantitative relationships represented by numbers?</p> <p>How can different parts combine?</p>	<p><b>Ratios, Proportion, and Functions:</b></p> <p>How are quantitative relationships represented by numbers?</p> <p>How can you represent a concept differently?</p>	<p><b>CMT Prep/Catch-up:</b></p> <p>Summative review and integration of major mathematical concepts.</p>	<p><b>Percent and Probability:</b></p> <p>How are quantitative relationships represented by numbers?</p> <p>Why would you represent a concept differently?</p>	<p><b>Number, Operation, and Algebra</b></p> <p>How do patterns and functions help us describe data and physical phenomena and solve a variety of problems?</p>	<p><b>Number, Operation, and Algebra</b></p> <p>How do patterns and functions help us describe data and physical phenomena and solve a variety of problems?</p>
<b>Topics</b>	<p>Interpreting Graphs Displaying Data Describing Data</p>	<p>Angle/Lines Triangles Quadrilaterals</p>	<p>Perimeter, Area Circumference Volume</p>	<p>Estimation, Order Decimals Problem Solving Divisibility Prime Factorization</p>	<p>Estimation Addition, Subtraction, Multiplication and Division of Fractions and Mixed Numbers</p>	<p>Estimating and Finding Equivalent ratios and rates Creating and Testing Proportions</p>	<p>Scale Drawings, Maps, Scales Dimensional Analysis Similarities</p>	<p>Finding Equivalent ratios and rates Creating and Testing Proportions</p>	<p>Integers Integer Operations The Coordinate Plane</p>	<p>Integers Integer Operations The Coordinate Plane</p>
<b>Standards</b>	<p>*Display and compare sets of data using various systematic or graphical representations. *Describe the shape of data sets using measures of spread/central tendency. *Understand that probabilities are reliable predictors. *Express probability using numerical</p>	<p>*Classify polygons according to their practices  *Construct similar polygons on coordinate grids.</p>	<p>*Examine relationships between the measures of area of two-dimensional objects and volume of three dimensional objects/. *Solve problems involving measurement thought the use of a variety of tools, techniques and strategies. *Use specific ratios to convert between measure of length,</p>	<p>*Relate whole numbers, fractions, decimals and integers to numbers lines, scales, the coordinate plane and problem-solving situations. *Express place value patterns using exponents to write power of ten *Interpret and connect fraction notation to division. *Compare quantities and solve problems using ratios, rates and percents. *Describe when</p>	<p>*Solve problems involving measurement thought the use of a variety of tools, techniques and strategies.  *Use specific ratios to convert between measure of length, area, volume, mass and capacity in the customary and metric systems.</p>	<p>*Solve problems using a variety of computational strategies, including the use of calculators.  *Develop meta-cognition strategies related to performance based assessments.</p>	<p>*Relate whole numbers, fractions, decimals and integers to numbers lines, scales, the coordinate plane and problem-solving situations.</p>	<p>*Develop meta-cognition strategies related to performance based assessments.</p>	<p>*Begin to investigate the use of Algebra and its' functions by learning to use variables, equations and expressions.</p>	<p>Begin to investigate the use of Algebra and its' functions by learning to use variables, equations and expressions.  *Summative Course Evaluation, Synthesis and Analysis</p>

	representations.		area, volume, mass and capacity in the customary and metric systems.	products/quotients with fractions/decimals can yield a larger/smaller result than either factor.						
<b>Major Skills</b>	<p><b>Students will:</b></p> <p>Interpret multiple graph forms. Identify scatter plot trends Construct bar graphs Construct stem and leaf plots Develop data displays Use mean, median and mode to describe data sets Analyze outlier impact on data sets.</p>	<p><b>Students will:</b></p> <p>Analyze perimeter/area/exponent relationships Determine area, circumference of regular and irregular shapes</p>	<p><b>Students will:</b></p> <p>Understand characteristics of polyhedrons Relate properties of 2 and 3 dimensional representations Determine volume of prisms and cylinders Prepare translations on coordinate planes Create rules for translations Identify line of symmetry and reflect figures</p>	<p><b>Students will:</b></p> <p>Compare, order and round decimals equations Solve decimal equations Accurately use scientific notation Determine greater common factors Determine least common factors Reduce equivalent fractions in lowest terms Order fractions Convert fractions</p>	<p><b>Students will:</b></p> <p>Estimate using fractions Find sums/difference of fractions/mixed numbers Solve equations Multiply fractions and mixed numbers Multiply and divide mixed numbers</p>	<p><b>Students will:</b></p> <p>Use ratios to compare quantities. Calculate ratios and rate equivalencies. Evaluate and solve proportions.</p>	<p><b>Students will:</b></p> <p>Use scales to compare distances. Create scale models/drawings Determine rate units Convert factors to problem solve Compare scale models. Understand how to use proportions to determine perimeter, area &amp; side lengths.</p>	<p><b>Students will:</b></p> <p>Use variables to show relationships. Apply order of operations and properties. Plot numbers less than zero. Explore properties of integers</p>	<p><b>Students will:</b></p> <p>Express problems using algebraic terms Translate algebraic expressions into words. Use inverse operations to solve equations</p>	Course Synthesis and Summative Work
<b>Coached Projects, Labs and Seminars</b>		Ground Floor: Area inquiry	Product Design: Create beverage containers.	Research Project: Bargain Shopping		Population Study: Investigate populous countries		Dream Design: Using scale knowledge skills to create your dream home.	It's All Buisness: Research a business and use your math skills to run it!	
<b>Textbook Chapters</b>	Math Connects Course 1 - Chapter 2: Statistics and Graphs	Math Connects Course 1 - Chapter 9: Geometry Angles and Polygons	Math Connects Course - Chapter 10: Measurement: Perimeter, Area, and Volume	Math Connects Course 1 - Chapter 4: Fractions and Decimals	Math Connects Course 1 - Chapter 5: Operations with Fractions	Math Connects Course 1 - Chapter 6: Ratio, Proportion, and Functions	CMP Comparing and Scaling	Math Connects Course 1 - Chapter 7: Percent and Probability	Math Connects Course 1 - Chapter 11: Integers and Transformations	Math Connects Course 1 - Chapter 11: Integers and Transformations

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