

Calendar-Based Curriculum Map:

7th 8th Grade

	August/September	October	November
Essential Question	<p>Do students understand the four major operations and the effect they have on numbers? Can students correctly apply all operations on rational numbers? Can students understand meanings of operations and how they relate to one another?</p>	<p>Do students understand numbers, ways of representing numbers, relationships among numbers and number systems? Can students compute fluently and make reasonable estimates?</p>	<p>Do students understand numbers, ways of representing numbers, relationships among numbers and number systems? Can students compute fluently and make reasonable estimates?</p>
Content	<ul style="list-style-type: none"> Describe the effects of all operations on rational numbers, including integers Apply all operations on rational numbers including integers Recognize equivalent representations for the same number and generate them by decomposing and composing numbers including exponential notations 	<ul style="list-style-type: none"> Apply all operations on rational numbers including integers Recognize equivalent representations for the same number and generate them by decomposing and composing numbers including exponential notations Describe the effects of all operations on rational numbers, including integers Apply all operations on rational numbers including integers Compare and order all positive rational numbers and find their approximate location on a number line. 	<ul style="list-style-type: none"> Describe the effects of all operations on rational numbers, including integers Apply all operations on rational numbers including integers Recognize equivalent representations for the same number and generate them by decomposing and composing numbers including exponential notations Apply all operations on rational numbers including integers Compare and order all positive rational numbers and find their approximate location on a number line.
Skills	<ul style="list-style-type: none"> Identify the place value of a 	<ul style="list-style-type: none"> Compare fractions and determine more or less than 	<ul style="list-style-type: none"> Write numbers in word form and in standard notation

	<ul style="list-style-type: none"> digit in a number • Write numbers in word form. Round numbers • Compute with whole numbers to solve problems, including word problems • Order of operations • Prime and composite numbers • Least common multiple • greatest common factor • square roots 	<ul style="list-style-type: none"> • simplify fractions • rename mixed numbers and improper fractions • compute with fractions and mixed numbers. 	<ul style="list-style-type: none"> • order numbers • round numbers • compute with decimals and whole numbers • express fractions as decimals • express numbers in scientific notation
Assessments	<ul style="list-style-type: none"> • Daily math openers • daily lesson plans • quizzes 	<ul style="list-style-type: none"> • Daily classwork • Quizzes • rubric for poster 	<ul style="list-style-type: none"> • Classwork • Quizzes • follow-up activities
Activities/Resources	<ul style="list-style-type: none"> • AGS basic Math skills text • Daily math practice (Evan-Moor publishing) • Internet resources such as Ed helper for MAP-A students • Flashcard • Games • factor rainbows 	<ul style="list-style-type: none"> • Daily math practice • Key math books • fractions bars/circles • workbooks • Test ready series. 	<ul style="list-style-type: none"> • AGS Basic math skills • Key math series • Daily math practice • test ready books • Sorting activities

Calendar-Based Curriculum Map:

	December	January	February
Essential Question	<p>Do students understand numbers, ways of representing numbers, relationships among numbers and number systems? Can students compute fluently and make reasonable estimates?</p>	<p>Can students analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships?</p>	<p>Can students understand measurable attributes of objects and the units, systems, and processes of measurement?</p>
Content	<ul style="list-style-type: none"> Describe the effects of all operations on rational numbers, including integers Apply all operations on rational numbers including integers Recognize equivalent representations for the same number and generate them by decomposing and composing numbers including exponential notations Apply all operations on rational numbers including integers Compare and order all positive rational numbers and find their approximate location on a number line 	<ul style="list-style-type: none"> Identify the 2-dimensional cross section of a 3 dimensional shape Describe relationships between corresponding sides, corresponding angles, and corresponding perimeters of similar polygons Determine all lines of symmetry Draw or use visual models to represent and solve problems Use tools to measure angles to the nearest degree and classify the angle as acute, obtuse, right, straight, or reflex 	<ul style="list-style-type: none"> Identify and justify the unit of measure for volume Identify the equivalent area and volume measure within a system of measurement Solve problems involving addition and subtraction of time Solve problems involving circumference and/or area of a circle and surface area/volume of a rectangular or triangular prism, or cylinder Convert from one unit to another within a system of measurement and convert square or cubic units within the same system of measurement
Skills	<ul style="list-style-type: none"> To rename a percent as a 	<ul style="list-style-type: none"> Identify parallel lines 	<ul style="list-style-type: none"> To measure line segments to

	<p>decimal and a fraction in simplest form</p> <ul style="list-style-type: none"> • to rename a decimal and a fraction as a percent • To find the missing terms in a percent sentence • to use a proportion to find the missing term in a percent sentence • To solve word problems using percents and taxes, interest, and tips 	<ul style="list-style-type: none"> • Identify the point of intersecting lines • Measure angles • Name triangles by looking at angles and sides • Name solid figures by looking at faces, vertices, and edges 	<p>the nearest 1/10 of a centimeter</p> <ul style="list-style-type: none"> • To estimate accurately the best unit for measuring • To change from one metric unit to another • To find area and volume • Convert Units • Find perimeter • Circumference/diameter
Assessments	<ul style="list-style-type: none"> • Quizzes • daily assignments 	<ul style="list-style-type: none"> • Classwork • quizzes 	<ul style="list-style-type: none"> • Classwork • quizzes
Activities/Resources	<ul style="list-style-type: none"> • AGS Basic math skills • Key math series • Daily math practice • test ready books 	<ul style="list-style-type: none"> • Protractor • AGS Basic math skills • Key math series • Daily math practice • test ready books 	<ul style="list-style-type: none"> • Compass • AGS Basic math skills • Key math series • Daily math practice • test ready books <p>Sorting activities</p>

Calendar-Based Curriculum Map:

	March	April	May
Essential Question	<p>Can students apply transformations and use symmetry to analyze mathematical situations?</p> <p>Can students specify locations and describe spatial relationships using coordinate geometry and other representational systems?</p>	<p>Early April-MAP prep and testing</p> <p>Late April</p> <p>Can students apply ratios to solve everyday problems?</p> <p>Can students use mathematical models to represent and understand quantitative relations?</p>	<p>Are students able to identify variables which represent unknowns in an equation?</p> <p>Can students solve simple two-step algebraic equations?</p>
Content	<ul style="list-style-type: none"> • Identify similar and congruent shapes • Describe the relationship between the scale factor and the perimeter of the image using a dilation • Use spatial visualizations to identify various 2-dimensional views of isometric drawings 	<ul style="list-style-type: none"> • Use properties to generate equivalent forms for simple algebraic expressions that include positive rationals and integers • Model and solve problems, using multiple representations such as graphs, tables, expressions, and linear equations • Compare situations with constant or varying rates of change 	<ul style="list-style-type: none"> • Use symbolic algebra to represent unknown quantities in expressions or equations and solve linear equations with one variable • Use properties to generate equivalent forms for simple algebraic expressions that include positive rationals and integers
Skills	<ul style="list-style-type: none"> • Graphing • Identify functions as linear or nonlinear • model and solve problems using representations such as graphs • tables • expressions and linear equations • locate patterns in graphs and tables 	<ul style="list-style-type: none"> • Write a ratio as a fraction in simplest term • compare amounts using a ratio • Find missing term in a proportion • Create and interpret tables charts and graphs 	<ul style="list-style-type: none"> • Operations • identifying variables • writing equations with variables

	<ul style="list-style-type: none"> • scale drawing 		
Assessments	<ul style="list-style-type: none"> • Classwork • Quizzes 	<ul style="list-style-type: none"> • Classwork • Quizzes 	<ul style="list-style-type: none"> • Classwork • Quizzes
Activities/Resources	<ul style="list-style-type: none"> • AGS Basic Math • Test ready • Released MAP items • graphing activities 	<ul style="list-style-type: none"> • AGS Basic math skills • daily math practice • test ready • paper for tables 	<ul style="list-style-type: none"> • Progress in mathematics • Key to algebra • create a storybook explaining how to apply variables to solve problems