Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Rigid Transformations and Congruence	**Dilations, Similarity, and Introducing Slope**	**Linear Relationships**	**Linear Equations and Linear Systems**	**Functions and Volume**	**Associations in Data**
Trimester 1	Trimester 1	Trimester 1/2	Trimester 2	Trimester 2	Trimester 3
I can describe and apply the properties of transitions, rotations, and reflections on lines, line segments, angles, parallel lines and geometry	I can describe how two figures are congruent if the first figure can be rotated, reflected, and/or translated to create the second figure. Given two congruent figures, I can describe the transformations needed to create the second from the first.	I can compare, contrast, and interpret multiple representations of proportional relationships (graphs, tables, equations, and verbal models). I can graph proportional relationships by using the unit rate as the slope of the graph. I can compare and contrast two different proportional relationships that are represented in different ways.	I can write, solve, and interpret the solution set of multi-step linear equations in one variable.	I can write, graph, and interpret linear functions. I can construct a function to model a linear relationship from a table of values, two points, or verbal description. I can determine the ate of change (slope) and initial value (y-intercept) from a table and graph. I can explain the meaning of the rate of change and initial value of a linear function in terms of the situation it models.	I can construct and interpret scatter plots. I can describe the relationships shown in a scatter-plot by identifying patterns such as: clustering; outliers; positive or negative correlation; linear association; nonlinear association.
I can describe how two figures are congruent if the first figure can be rotated, reflected, and/or translated to create the second figure. Given two congruent figures, I can describe the transformations needed to create the second from the first.	I can describe and apply dilation, translation, rotation, and reflection to two-dimensional figures in a coordinate plane.	I can write and interpret an equation for a line in slope-intercept form and determine the relationship is linear using similar triangles to show the slope is the same between any two points.	I can write, solve, and interpret the solutions to systems of linear equations with two variables graphically and algebraically. I can recognize and explain the solution to a system of linear equations graphically. I can describe instances when a system of equations will yield one solution, no solutions, or infinitely many solutions.	I can compare and contrast multiple representations of two functions. I can determine whether the relationship is a function in any type of representation. I can identify the rate of change and y-intercept for a linear function in any type of representation.	I can sketch a line of best fit on a scatter plot, justify the location of the line, and explain why or why not a given line is a good fit.
I can describe and apply dilation, translation, rotation, and reflection to two-dimensional figures in a coordinate plane.	I can describe how two figures are similar if the first figure can be rotated, reflected, translated and dilated to create the second figure. Given two similar figures, I can describe the transformations needed to create the second from the first.	I can write, solve, and interpret the solutions to systems of linear equations with two variables graphically and algebraically. I can recognize and explain the solution to a system of linear equations graphically. I can describe instances when a system of equations will yield one solution, no solutions, or infinitely many solutions.		I can determine if a function is linear or non-linear from a table, equation, graph, or verbal model.	I can write the equation of a line of best fit and use it to make predictions. I can use the slope and y-intercept to describe the relationship represented in a data set.
I can informally prove: The angle-sum theorem; The properties of angles when parallel lines are cut by a transversal; The angle-angle criterion for similar triangles.	I can informally prove: The angle-sum theorem; The properties of angles when parallel lines are cut by a transversal; The angle-angle criterion for similar triangles.	I can describe and apply the properties of translations, rotations, and reflections on lines, segments, angles, parallel lines and geometric figures.		I can determine if a relation is a function using a table, graph, or set or ordered pairs.	I can construct two-way frequency and relative frequency tables to summarize categorical data. I can use relative frequencies to describe the possible association between two variables of categorical data.
	I can describe a proof of the Pythagorean Theorem and its converse.			I can describe the relationship between two quantities when given a graph. I can sketch a graph from a verbal description of a function.	
				I know and can apply the formulas for volumes of cones, cylinders, and spheres.	
Major Clusters Areas of intensive focus, where students need fluent understanding and application of the core concepts Ratio and Proportional Reasoning (1, 2, 3) The Number System (1, 2, 3) Expressions and Equations (1, 2, 3, 4)	**Supporting Clusters** Rethinking and linking- areas where some material is being covered, but in a way that applies core understandings Statistics and Probability (1, 2, 5, 6, 7, 8)	**Additional Clusters** Students will gain exposure to these topics, but not at the same depth as a major or supporting cluster Geometry (1, 2, 3, 4, 5, 6) Statistics and Probability (3. 4)			**EIGHTH GRADE**

Unit 7	Unit 8
Exponents and Scientific Notation	**Pythagorean Theorem and Irrational Numbers**
Trimester 3	Trimester 3
I can describe and apply the properties of integer exponents to expressions.	I can identify whether a number is rational or irrational by whether its decimal form is exact, repeating, or does not repeat. I can convert repeating decimal numbers into their fraction equivalents.
I can estimate and compare very large and very small quantities using scientific notation. I can determine how many times bigger one number is than another using scientific notation.	I can estimate rational and irrational numbers in order to compare their relative size and location on a number line.
I can describe when and where to use scientific notation and choose appropriate units for very large and very small numbers. I can compare, interpret and calculate values using scientific notation and decimal equivalents in the same problem.	I can solve one-step equations requiring square or cube roots and determine when the solution is rational or irrational.
	I can describe a proof of the Pythagorean Theorem and its converse.
	I can determine the unknown side lengths in a right triangle problem using the Pythagorean Theorem.
	I can determine the distance between two points in a coordinate plane using the Pythagorean Theorem. I can determine the distance between two points in a 3-dimensional case using the Pythagorean Theorem.
	EIGHTH GRADE