BFMS 8th Grade Math Scope and Sequence

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5
Trimester 1	*Trimester 1/2*	*Trimester 2*	*Trimester 3*	*Trimester 3*
Integer Exponents, Scientific Notation & Roots	**Functions & Linear Equations**	**Examples of Expressions & Equations with Systems of Equations and Pythagorean Theorem**	**Congruence and Similarity**	**Introduction to Statistics and Probability**
approx. 35 Days	*approx. 45 Days*	*approx. 40 Days*	*approx. 40 Days*	*as time allows approx. 20 Days*
Simplify numeric and algebraic expressions w/ Integer Exponents (Properties/Laws of Exponents)	What it means to be a "function"	Solving 1-step, 2-step, multi-step one variable linear equations w/ 1 solution, infinite sols. and no sols. w/ algebra	Experiment w/ the properties of rotations, reflections & translations	Construct and Interpret scatter plots of 2 variable linear and non-linear data for patterns of positive & negative association, outliers, clusters etc.
Use Scientific Notation to rewrite very large and very small numbers	Comparing Functions in a variety of representations(table, graph, list of pts., equation etc.) to see their diffs./similarities in for example, Rate of change, which is larger etc.	Solve Systems of Linear equations	Use a sequence of rotations, reflections &/or translations to show 2 figures are congruent aka exactly the same size and shape	Find an equation of the Line of Best Fit for a linear trend scatter plot and use it as a model to make predictions for other unspecified data in the trend
Perform operations w/ Sci. Notation	What is a linear function and what is non-linear	Explore the proof of the Pythagorean Theorem	Describe what happens to 2-D figures using its coordinates/points when it is dilated,translated,	Interpret, in context, the slope and y-intercept of a Line of Best Fit model for a scatter plot of 2 variable data

			rotated, or reflected	
Evaluate square roots and cube roots of expressions & rational and irrational #s	Construct/Write the equation of a linear relationship, y=mx+b, from a variety of representations(table, graph, words, etc.)	Apply the Pythagorean Theorem to find missing sides of right triangles.	Use a sequence of rotations, reflections, translations &/or dilations to show 2 figures are similar aka same shape but not necessarily the same size	Investigate patterns of association between categorical data with frequencies noted in a 2-way table to find if there is evidence of association between the variables
Converting to decimals from fractions and whole numbers, including terminating and repeating decimals	Interpret and sketch Qualitative graphs:where is it inc., dec., linear, non-linear, stagnant/stuck/stops...	Use the Pythagorean Theorem to find Distance between 2 points.	Use visuals to demonstrate the triangle sum theorem, exterior angles of a triangle, and the different types of angles and geometric properties formed by lines that intersect each other including parallel lines crossed by an additional line(s)	
Estimate w/ irrational numbers to compare them/put them in order with other #s	What it means to be proportional, in a variety of representations. Compare proportional representations.	Use the formulas for Volume of Cylinders, cones & spheres for real world problems		
	Find the equation of a line using similar slope triangles for "m" and locating y-intercept "b"			