

Note: The focus maps are not required nor are they intended to serve as pacing guides, but rather to support discussion and collaboration amongst educators. The goal in discussing these maps is to build collective efficacy and ownership in the instructional process as resources are developed that support and align instruction.

Note: To be used in conjunction with Wiring Diagram.

Key: Depth of Opportunity					
MAJOR CLUSTERS 70%					
SUPPORTING CLUSTERS 15-20%					
ADDITIONAL CLUSTERS 10-15%					
Content Area	Cluster	1st 9 WEEKS	2nd 9 WEEKS	3rd 9 WEEKS	4th 9 WEEKS
Number Systems & Operations 8.1-8.2	Understand that the real number system is composed of rational and irrational numbers.	<p>[8.1] Apply with Geometry standards particularly Pythagorean Theorem and volume [8.27], [8.28], [8.29], [8.30]</p> <p>[8.2] Apply with Geometry standards particularly Pythagorean Theorem and volume [8.27], [8.28], [8.29], [8.30]</p> <p>*** Added - Informally derive the formula for the volume for the volume of cones and spheres by experimentally comparing the volumes of cones and spheres with the same radius and height to a cylinder with the same dimensions.</p> <p>*** Removed - "know" formulas to "use" formulas</p>		[8.1] [8.2]	
Algebra & Functions 8.3-8.6	Apply concepts of integer exponents and radicals.	<p>[8.4] Apply with Geometry standards below particularly Pythagorean Theorem (2-D figures) and volume (3-D figures) [8.28], [8.30]</p> <p>*** Added - Number magnitude restriction for square roots and cube roots</p>		[8.3] *** Added - Develop properties of integer exponents [8.4] *** Added - Number magnitude restriction for square roots and cube roots [8.5] [8.6]	[8.4] Apply with Geometry standards below particularly Pythagorean Theorem (2-D figures) and volume (3-D figures) [8.28], [8.30] *** Added - Number magnitude restriction for square roots and cube roots
Algebra & Functions 8.7-8.17	Analyze the relationship between proportional and non-proportional situations.	<p>[8.7] Apply with congruence, similarity and dilations. [8.22], [8.23]</p> <p>[8.8] Apply with functional relationships, graphing and interpreting bivariate data, and in different statistical representations [8.16], [8.17], [8.18], [8.19], [8.20], [8.21]</p> <p>*** Added - Interpret unit rate as the constant of proportionality and slope</p> <p>[8.9] Apply with functional relationships, graphing and interpreting bivariate data, and in different statistical representations [8.16], [8.17], [8.18], [8.19], [8.20], [8.21]</p> <p>[8.10] Apply with functional relationships, graphing and interpreting bivariate data, and in different statistical representations [8.16], [8.17], [8.18], [8.19], [8.20], [8.21]</p> <p>*** Added - Compare proportional and non-proportional relationships</p>	<p>[8.7] Apply with congruence, similarity and dilations. [8.22], [8.23]</p> <p>[8.8] Apply with functional relationships, graphing and interpreting bivariate data, and in different statistical representations [8.16], [8.17], [8.18], [8.19], [8.20], [8.21]</p> <p>*** Added - Interpret unit rate as the constant of proportionality and slope</p> <p>[8.9] Apply with functional relationships, graphing and interpreting bivariate data, and in different statistical representations [8.16], [8.17], [8.18], [8.19], [8.20], [8.21]</p> <p>[8.10] Apply with functional relationships, graphing and interpreting bivariate data, and in different statistical representations [8.16], [8.17], [8.18], [8.19], [8.20], [8.21]</p> <p>*** Added - Compare proportional and non-proportional relationships</p>		[8.8] Apply while solving geometrical problems, prior knowledge for systems and representing and interpreting functional relationships [8.27], [8.28], [8.29], [8.30] *** Added - Interpret unit rate as the constant of proportionality and slope [8.9] Apply while solving geometrical problems, prior knowledge for systems and representing and interpreting functional relationships [8.27], [8.28], [8.29], [8.30] [8.10] *** Added - Compare proportional and non-proportional relationships

	Analyze and solve linear equations and systems of two linear equations.				[8.11] *** Added - Represent and solve real-world and mathematical problems with [multi-step] equation and interpret the solution in the context of the problem [8.12] *** Added - Solving by elimination is saved for Algebra I
	Explain, evaluate, and compare functions.	[8.13] [8.14] *** Added - Evaluate functions given values for the independent variable [8.15]	[8.13] Apply understanding of functions to model relationships, construct graphs and interpret bivariate data [8.16], [8.17], [8.18], [8.21] [8.15] Apply when analyzing linear and non linear [8.9]		
	Use functions to model relationships between quantities.		[8.16] [8.17]		
Data Analysis, Statistics, and Probability 8.18-8.21	Investigate patterns of association in bivariate data.		[8.18] [8. 19] [8. 20] [8. 21]		
	Understand congruence and similarity using physical models or technology.				[8.22] [8.23] Apply with determining if a relationship is proportional/non-proportional [8.7], [8.8], [8.9], [8.10] [8.24]
	Analyze parallel lines cut by a transversal	[8.25] apply to solve problems involving Pythagorean Theorem and volume *** Removed - Exterior angles of triangles and Angle-angle criterion			
Geometry & Measurement 8.22-8.30	Understand and apply the Pythagorean Theorem.	[8.26] [8.1], [8.2] [8.27] Apply with number systems and operations [8.1], [8.2] [8.28] Apply with number systems and operations [8.1], [8.2]			[8.26] [8.27] [8.28]

<p>Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.</p>	<p>[8.29] Apply with number systems and operations [8.1], [8.2] ***Added- Informally derive the formula for the volume of cones and spheres by experimentally comparing the volumes of cones and spheres with the same radius and height to a cylinder with the same dimensions. [8.30]</p>			
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