

SMMUSD MATH 8 CURRICULUM GUIDE					
SEMESTER 1		SEMESTER 2			
Unit 1 Aug-Oct 6 weeks Geometric Transformations <i>+ Inspiring week of math—Stanford YouCubed</i> <i>Butterflies, Pinwheels & Wallpaper</i>	Unit 2 Oct-Dec. 9 weeks Graphing and Writing Linear Relationships <i>Thinking with Mathematical Models</i>	Unit 3 Jan-Feb 6 weeks Algebraic Expressions, Equations & Systems of Relationships (linear) <i>Say It with Symbols It's in the System</i>	Unit 4 Feb-Mar 4 weeks Exponents and Radicals <i>Growing, Growing, Growing</i>	Unit 5 Mar-May 4 weeks Pythagorean Theorem and Rational/Irrational Numbers <i>Looking for Pythagoras</i>	Review/Projects May-June 3 weeks <i>Consider using time after CAASPP to review and solidify concepts. Continue engaging students with projects tied to the course's concepts.</i>
Introduction to transformational geometry and understanding congruence and similarity	Patterns, Functions, Linear Functions, Graphs, Linear Equations	Use and manipulate symbolic representations in context and work with systems of linear relationships	Exponential Relationships	Pythagorean Theorem, roots, beyond rational numbers, Volume	
8.G.1, 8.G.1a, 8.G.1b, 8.G.1c, 8.G.2, 8.G.3, 8.G.4, 8.G.5	8.EE.5, 8.EE.6, 8.EE.7, 8.F.1, 8.F.2, 8.F.3, 8.F.4, 8.F.5, 8.SP.1, 8.SP.2, 8.SP.3, 8.SP.4	8.EE.2, 8.EE.7, 8.EE.7a, 8.EE.7b, 8.EE.8, 8.EE.8a, 8.EE.8b, 8.EE.8c, 8.G.9, 8.F.3	8.EE.1, 8.EE.2, 8.EE.3, 8.EE.4, 8.F.1, 8.F.2, 8.F.3, 8.F.4, 8.F.5	8.NS.1, 8.NS.2, 8.EE.2, 8.G.6, 8.G.7, 8.G.8, 8.GC.9	

Domains: *NS: The Number System; EE: Expressions and Equations; F = Functions; G = Geometry; SP: Statistics and Probability*

For Grade Eight Mathematics, instructional time should focus on three critical areas:

- (1) Formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations.**
- (2) Grasping the concept of a function and using functions to describe quantitative relationships.**
- (3) Analyzing two- and three- dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem**

Mathematical Practices 1-3-6 = connections to EL/ELD and NGSS standards: See Overview Curriculum Guide for details of grade expectations

MP1: Make sense of problems and persevere in solving them

MP2: Reason abstractly and quantitatively

MP3: Construct viable arguments and critique the reasoning of others

MP4: Model with mathematics

MP5: Use appropriate tools

MP6: Attend to precision

MP7: Look for and make use of structure

MP8: Look for and express regularity in repeated reasoning