

## SMMUSD COURSE DESCRIPTION

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### MATH CORE 7/8:

This accelerated course is a one-year math course for students entering seventh grade, which combines both the 7<sup>th</sup> and 8<sup>th</sup> grade California Mathematics Standards. The key concepts, skills and reasoning strategies for Grades 7 and 8 will be explored using the problem-centered *Connected Mathematics Project 3 (CMP3)*. Mathematical concepts are embedded within engaging problems and projects. Students develop skills and understanding as they explore the problems individually, in a group, and as a whole class. The in-class development problems and the homework exercises give students practice throughout the year with valuable standards-based concepts, pre-algebra related skills, and algorithms. Students are required to write in both an analytical and evidence-based manner.

In Math Core 7/8, instructional time will focus on (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Students also work towards fluently solving equations of the form  $px + q = r$  and  $p(x + q) = r$ . These are the four critical areas within the 7<sup>th</sup> grade standards.

Furthermore, there are also three critical areas of focus within the 8<sup>th</sup> grade standards: (1) formulating and reasoning about expressions and equations, including modeling and 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. Students also work towards fluency with solving simple sets of two equations with two unknowns by inspection.

Students will develop a strong grasp of the Mathematical Practices:

1. Make Sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.