



Middle School Mathematics Course Descriptions

Typical Pathway



Compacted Pathway



SCUSD considers multiple measures to recommend mathematics placement for students in the spring of each school year. Results are shared with elementary, K-8 and middle schools in June and placement checks are conducted each September to ensure all students have access appropriate mathematics courses.

For more information about course placement guidelines, please access the [Secondary Math Course Placement Guidelines](#) document available on the district math webpage: www.scusd.edu/math

Typical Pathway

Course: Grade 7 Math (MAM007)

In grade seven, instructional time is focused on four critical areas:

1. Developing understanding of and applying proportional relationships, including percentages.
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.
4. Drawing inferences about populations based on samples. Students also work towards fluently solving equations of the form $px + q = 5$ and $p(x + q) = r$.

The SCUSD-SCTA agreed upon [Sequence of Instruction for Grade 7 Math](#)

All math curriculum guides available at <https://sites.google.com/scusd.edu/mathematics>

Course: Grade 8 Math (MAM008)

In grade eight, instructional time is focused 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.

The SCUSD-SCTA agreed upon [Sequence of Instruction for Grade 8 Math](#)

All math curriculum guides available at <https://sites.google.com/scusd.edu/mathematics>

Students who complete Grade 7 & Grade 8 Math are prepared to enter Integrated Math 1 in high school.

Compacted Pathway

Course: Compacted Math 7th/8th (MAM078)

The accelerated course taught in 7th grade, compacts all of the standards in grade 7 with approximately half of the grade 8 standards into one school year. Instructional time is focused on six critical areas:

1. Developing understanding of and applying proportional relationships, including percentages.
2. Developing understanding of operations with rational numbers and working with expressions and linear equations. Students also work towards fluently solving equations of the form $px + q = 5$ and $p(x + q) = r$.
3. Formulating and reasoning about expressions and equations, including solving linear equations and systems of linear equations.
4. 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.
5. Drawing inferences about populations based on samples.
6. Understanding and applying the Pythagorean Theorem.

The SCUSD-SCTA agreed upon [Sequence of Instruction for Compacted Math 7/8](#)

All math curriculum guides available at <https://sites.google.com/scusd.edu/mathematics>

Course: Compacted 8th /Integrated Math 1 (MAM811)

This accelerated course for 8th grade students compacts all of the standards from Integrated Math I with some of the standards in grade 8 in one school year. Instructional time is focused on eight critical areas:

1. Grasping the concept of a function and using functions to describe quantitative relationships.
2. Extend understanding of numerical manipulation to algebraic manipulation.
3. Synthesize understanding of function.
4. Deepen and extend understanding of linear relationships.
5. Apply linear models to data that exhibit a linear trend.
6. Analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence.
7. Establish criteria for congruence based on rigid motions.
8. Apply the Pythagorean Theorem to the coordinate plane.

The SCUSD-SCTA agreed upon [Sequence of Instruction for Compacted Math 8/IM1](#)

All math curriculum guides available at <https://sites.google.com/scusd.edu/mathematics>

Students who complete both middle school compacted courses are prepared to enter into high school at either Integrated Math 2 or Integrated Math 2+.

Adapted from

- Common Core State Standards for Mathematics Initiative (<http://www.corestandards.org/Math/>)
- CA Mathematics Framework (<http://www.cde.ca.gov/ci/ma/cf/draft2mathfwchapters.asp>)
- College Board Course Description (<http://media.collegeboard.com/digitalServices/pdf/ap/ap-calculus-course-description.pdf>)