



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](http://www.scusd.edu/math) 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](#)

District-adopted instructional materials provided for middle school courses: **Big Ideas Math, Course 2**. Teachers are encouraged to use open source materials suggested in the district curriculum guides to meet the requirements of the state content and practice standards. 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](#)

District-adopted instructional materials provided for middle school courses: **Big Ideas Math, Course 3**. Teachers are encouraged to use open source materials suggested in the district curriculum guides to meet the requirements of the state content and practice standards. 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](#)

District-adopted instructional materials provided for Compacted 7/8: **Big Ideas Math, Course 2 & 3**. Teachers are encouraged to use open source materials suggested in the district curriculum guides to meet the requirements of the state content and practice standards. 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](#)

District-adopted instructional materials provided for Compacted 8/1: **Big Ideas Math, Course 3** and **Integrated Pathway: Mathematics I**. Teachers are encouraged to use open source materials suggested in the district curriculum guides to meet the requirements of the state content and practice standards. 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+.

Math Support

Course: Math Intervention 7/8 (MAS578)

This course is designed for students needing periodic and/or long-term support in their core math course. Intervention courses focus on:

- Building number sense, particularly with visual representations like number lines and area models
- Developing a conceptual understanding of grade-level mathematics
- Strengthening problem-solving skills
- Increasing computational fluency
- Fostering a growth mindset

There is no sequence of instruction or adopted instructional materials for this course. Sequencing aligns with the core math course and intervention is responsive to individual student needs.

Students must be enrolled in one of the core math courses listed above (MAM007; MAM008; MAM078; MAM811). This support class cannot be the only math course in a student's schedule.

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>)