6th Grade Math Syllabus

Course Details

Course Code: 11100000

Subject: 6th Grade Mathematics

Required Prerequisites: Successful completion of 5th Grade Mathematics.

Suggested Prerequisites: None

Recommended Grade Levels: 6th Grade

Duration: Varies

Course Availability: A listing of when this course is offered in the current school year can be found on the VirtualSC Current Course Offerings page (opens in a new window).

Class Times: There are no scheduled class meetings for this course; however, to measure learning, students will complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and live conferences with an instructor. Students are expected to maintain regular contact with teachers. Students are expected to work on their own to meet the deadlines posted in their course pacing guide. Students should expect to spend 7-9 hours a week working on this course independently, in addition to any live meetings.

Textbook: There is no textbook required for this course.

Required Course Materials: No additional materials required.

Outside Websites: A list of links to websites and online textbooks used in this course can be found here: VSC Course Links Document Folder (opens in a new window). Students will need to be able to access all of these links to access all course materials.

Final Exam: Students in this course take section A and section B comprehensive assessments.

Course Description

Middle School Grade 6 Mathematics is designed to engage students at every turn. Students have opportunities to demonstrate their knowledge of number manipulation by applying it to real-world scenarios. The course is packed with engaging activities that reinforce and let students practice the skills they learn throughout the course. Interactive learning and innovative videos keep the students engaged throughout.

The instruction in this course focuses on four critical areas: (1) connecting ratio and rate to whole-number multiplication and division, and using concepts of ratio and rate to solve problems; (2) completing an understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing an understanding of statistical thinking. The instruction in the advanced course focuses on two extra critical areas: (1) developing understanding of and applying proportional relationships; and (2) developing understanding of operations with rational numbers and working with expressions and linear equations.

The curriculum used in this course is guided by the [SC College- and Career-Ready Standards for Math Grade 6](#) (opens in a new window).

Scope and Sequence

Advanced assessments are in italics. Students not taking the advanced course will skip these lessons and assessments.

Module 1: DECIMALS AND FRACTIONS
- Adding and Subtracting Decimals
- Multiplying Decimals
- Division

Module 2: RATIOS AND RATE REASONING
- Understanding a Ratio
- The Unit Rate
- Equivalent Ratios
- Percentages
- Measurements
- Unit Conversions
- *Complex Unit Rate Advanced*

Module 3: RATIONAL NUMBERS
- GCF and LCM
- Positive and Negative Numbers

- The Number Line
- Ordering of Numbers
- The Absolute Value
- *Applying the Number Line Advanced*
- *Adding and Subtracting Rational Numbers Advanced*
- *Multiplying Rational Numbers Advanced*
- *Dividing Rational Numbers Advanced*

Module 4: THE COORDINATE PLANE
- Ordered Pairs
- Plotting on the Coordinate Plane
- Ratios and the Coordinate Plane
- Applications with Coordinates
- *Characteristics of a Proportion Advanced*

Module 5: AREA
- Area of Triangles
- Area of Quadrilaterals
- Area of Polygons
- Shapes on the Coordinate Plane
- Surface Area of Prisms
- Surface Area of Pyramids

Module 6: EXPRESSIONS
- Numerical Expressions
- Algebraic Expressions
- Parts of an Expression
- Evaluating Algebraic Expressions
- Mid-Module Check
- Algebraic Properties
- Equivalent Expressions
- *Properties of Operations Advanced*
- *Rewriting Expressions Advanced*

Module 7: EQUATIONS
- Solutions to Equations and Inequalities
- Applications with Expressions
- Solving Equations I
- Solving Equations II

- Inequalities
- Dependent and Independent Variables
- Analyzing Relationships
- *Equations for Proportional Relationships Advanced*
- *Applications with Ratios Advanced*
- *Applications with Percentages Advanced*

Module 8: UNDERSTANDING DATA
- Statistical Questioning
- Measurements of Data
- Dot Plots and Histograms
- Box Plots
- Summarizing Data
- Data with Outliers

Students will be sent a full list of assignments and their due dates at the beginning of the course.

Current pacing guides for this course can be found on the [Current Course Offerings page](#) (opens in a new window) on the VirtualSC website.

Course Grades

Teachers will share course grading details for students at the beginning of the course term.

VirtualSC Details

Information on VirtualSC student guidelines, policies and technology requirements can be found in the [VirtualSC Student Support Portal (opens in a new window).](#)