

Math 6

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In Math 6, students make the transition from arithmetic to algebraic thinking. It sets high expectations for all students, making provisions for enrichment and acceleration for advanced students and remediation for students who need more assistance. The curriculum provides a complete correlation of the South Carolina Mathematics Curriculum Standards and the Glencoe: *South Carolina Math Connects Course I* textbook. It will give students a broad range of information covering the five strands of mathematics: Number and Operations, Algebra, Geometry, Measurement, Data Analysis and Probability. It may be helpful to print a copy of this course syllabus as a resource for you and your child.

MATERIALS: In addition to the materials listed on the sixth grade list, students will need the following:

- Marble Composition book
- TI-30 Calculator (optional)
- Quadrule graph paper

GRADING: As per district policy:

50% Major Assessments (tests and/or projects)

50% Minor Assessment

- 20% homework
 - 30% quizzes
- Three to four major tests each quarter.
 - Approximately five quizzes each quarter.
 - Homework will be assigned three to four days each week. All homework/class work must have the required work shown.
 - **All math assignments (homework, class work, quizzes, tests) must be completed in pencil.**
 - All notes must be kept in your "note-taker" composition book.
 - All warm-ups, homework, handouts, and returned papers should be kept in the math section of your binder. The math section of your binder should be cleaned out after each unit test.

CLASSROOM PROCEDURES: On most days, our classes will follow this progression:

1. Warm-up.
2. Check Homework.
3. Introduce new objective(s).
4. Practice.
5. Review the day's objective(s).
6. Assign homework.

ABSENTEEISM: If a student is absent, it is the student's responsibility to check the assignment board/web site for missed work. Students should also check with a fellow classmate for missed notes, and other important announcements.

CLASS EXPECTATIONS: We, as teachers, have very high expectations for all our students. We believe that all students can learn, and we expect all our students to put forth their best effort each and every day. Students should come to class prepared with all materials and assignments on a daily basis. Each student should actively participate in class, and work to the best of their ability.

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1st Quarter		
<u>Chapter</u>	<u>Title</u>	Tentative Time Frame
1	Algebra, Number Patterns, and Functions	17
2	Statistics and Graphs	13
3	Operations with Decimals	13
	MAP Testing (Adjustments will be made to daily schedule)	2
2nd Quarter		
<u>Chapter</u>	<u>Title</u>	Tentative Time Frame
4	Fractions and Decimals	15
5	Fractions	19
11	Integers and Transformations	9
	Benchmark Test and Review	2
3rd Quarter		
<u>Chapter</u>	<u>Title</u>	Tentative Time Frame
6	Ratio, Proportion, and Functions	11
7	Percent and Probability	13
9	Geometry: Angles and Polygons	12
10	Measurement: Perimeter, Area, Volume	9
	MAP Testing (Adjustments will be made to daily schedule)	2
4th Quarter		
<u>Chapter</u>	<u>Title</u>	Tentative Time Frame
10	Measurement: Perimeter, Area, and Volume	13
12	Algebra: Properties and Equations	13
	Review for PASS	3
	PASS Testing	4
	Second Semester Benchmark Test and Review	2
11	Integers and Transformations (Operations with Integers)	7
	Final Exam and Review	3

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6th grade Standards

	Standard	Description
Number and Operations	6-2.1	Understand whole-number percentages through 100.
	6-2.2	Understand integers.
	6-2.3	Compare rational numbers and whole-number percentages through 100 by using the symbols \leq , \geq , $<$, $>$, and $=$.
	6-2.4	Apply an algorithm to add and subtract fractions.
	6-2.5	Generate strategies to multiply and divide fractions and decimals.
	6-2.6	Understand the relationship between ratio/rate and multiplication/division.
	6-2.7	Apply strategies and procedures to determine values of powers of 10, up to 10^6 .
	6-2.8	Represent the prime factorization of numbers by using exponents.
	6-2.9	Represent whole numbers in exponential form.

Algebra	6-3.1	Analyze numeric and algebraic patterns and pattern relationships.
	6-3.2	Apply order of operations to simplify whole-number expressions
	6-3.3	Represent algebraic relationships with variables in expressions, simple equations, and simple inequalities.
	6-3.4	Use the commutative, associative, and distributive properties to show that two expressions are equivalent.
	6-3.5	Use inverse operations to solve one-step equations that have whole-number solutions and variables with whole-number coefficients.
Geometry	6-4.1	Represent with ordered pairs of integers the location of points in a coordinate grid.
	6-4.2	Apply strategies and procedures to find the coordinates of the missing vertex of a square, rectangle, or right triangle when given the coordinates of the polygon's other vertices.
	6-4.3	Generalize the relationship between line symmetry and rotational symmetry for two-dimensional shapes.
	6-4.4	Construct two-dimensional shapes with line or rotational symmetry.
	6-4.5	Identify the transformation(s) used to move a polygon from one location to another in the coordinate plane.
	6-4.6	Explain how transformations affect the location of the original polygon in the coordinate plane.
	6-4.7	Compare the angles, side lengths, and perimeters of similar shapes.
	6-4.8	Classify shapes as similar.
	6-4.9	Classify pairs of angles as either complementary or supplementary.

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Measurement	6-5.1	Explain the relationships among the circumference, diameter, and radius of a circle.
	6-5.2	Apply strategies and formulas with an approximation of π (3.14, or $\frac{22}{7}$) to find the circumference and area of a circle.
	6-5.3	Generate strategies to determine the surface area of a rectangular prism and a cylinder.
	6-5.4	Apply strategies and procedures to estimate the perimeters and areas of irregular shapes.
	6-5.5	Apply strategies and procedures of combining and subdividing to find the perimeters and areas of irregular shapes.
	6-5.6	Use proportions to determine unit rates.
	6-5.7	Use a scale to determine distance.
Data Analysis and Probability	6-6.1	Predict the characteristics of one population based on the analysis of sample data.
	6-6.2	Organize data in frequency tables, histograms, or stem-and-leaf plots as appropriate.
	6-6.3	Analyze which measure of central tendency (mean, median, or mode) is the most appropriate for a given purpose.
	6-6.4	Use theoretical probability to determine the sample space and probability for one- and two-stage events such as tree diagrams, models, lists, charts, and pictures.
	6-6.5	Apply procedures to calculate the probability of complementary events.