8th Grade Math

Course 3 Mathematics - Year at a Glance

Course # 1205100, 1205100

A Note to Parents: The Florida state standards require math teachers plan lessons that build knowledge of various mathematical concepts, develop the ability to apply these concepts, and engage students in critical thinking and discourse. All standards in the state course description are designed to be learned by the end of the course.

Please note the units of study listed below indicate the course sequence. Instructional pacing may vary. Specific questions regarding when content will be addressed in a specific course are best answered by the individual teacher.

Course Description

In Grade 8, instructional time should focus 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.

IB MYP Notes: The International Baccalaureate® aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect. The MYP curriculum framework comprises eight subject groups, providing a broad and balanced education for early adolescents. The MYP requires at least 50 hours of teaching time for each subject group, in each year of the program. The MYP is inclusive by design; students of all interests and academic abilities can benefit from their participation.

CPALMS Link

Please follow the link below to learn more about the course expectations, the course standards, and to access student resources. The student resources include Florida Department of Education recommended resources that students can use to learn the concepts and skills in this course.
https://www.cpalms.org/PreviewCourse/Preview/10287

	Unit of Study	Unit Sequence
Quarter 1 Aug 10 – Oct 12	Unit 1: The Real Number System	• Review Integers Rules and Order of Operations • Irrational vs Rational • Square Roots • Cube Roots • Approximating and Comparing Square Roots
	Unit 2: Expressions and Equations	• Solving Linear Equations in One Variable • One-Step Equations • Two-Step Equations • Multi-step Equations - Distributing, Combining Like Terms, Variables on Both Sides • Literal Equations • Factor a Common Monomial from the Sum of Two Algebraic Expressions
	Unit 3: Angles and Triangles	• Understanding Angles and Relationships • Parallel Lines cut by a Transversal • Finding total sum of Interior Angles • Finding the missing variable within the angle • Finding the missing interior angle • Find the exterior angle measure of a triangle • Sum of interior angles of a polygon
Quarter 2 Oct 13 – Dec 22	Unit 4: Graphing and Writing Linear Equations and Functions	• Linear Equations in Two Variables and Proportional Relationships • Graphing Using a Chart • Understanding Slope • Graphing Proportional Relationships • Slope-Intercept Form • Standard Form • Point-Slope Form • Understand, Compare, Analyze and Graph Functions • Independent vs. Dependent Variables • Writing Function Rules • Compare Linear vs Nonlinear Functions
	Unit 5: Systems of Equations	• Review Graphing Linear Equations • Systems of Equations by Graphing • Solve by Substitution • Solve by Elimination
Quarter 3 Jan 11 – Mar 11	Unit 6: Pythagorean Theorem	• Understanding and Solving the Pythagorean Theorem and Distance Formula • Find the Diagonal of a 3-D Shape • Pythagorean Word Problems
	Unit 7: Transformations	• Transformations • Congruent Shapes vs Similar Shapes • Translations, Reflections, Rotations and Dilations • Justify Whether a Transformation is Congruent or Similar
	Unit 8: Volume	• Volume of Cylinders • Volume of Cones • Volume of Spheres

Quarter 4 Mar 22 – May 27	Unit 9: Exponent Laws and Scientific Notation	• Exponents • Product of Powers • Quotient of Powers • Scientific Notation • Operations with Numbers Expressed in Scientific Notation • Laws of exponents to generate equivalent monomials
	Unit 10: Data and Statistics	• Scatter Plots and Line of Fit • Frequency Tables • Marginal frequency • Relative frequency

Course Resources

Core Textbook:
Big Ideas - Students have online access through My.SarasotaCountySchools.net

Supplemental Resources:
i-Ready - Students log in through My.SarasotaCountySchools.net
Khan Academy
FSA Portal
For additional supplemental resources, please see your child's course syllabus.