



Content Area: Math

Grade Level: 8th

Course Name: Math 8

Course Description:

In Grade 8, instructional time should focus on three 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.

Units- Length of Time	Description
Unit 1: Laws of Exponents	This unit introduces students to the laws of exponents.
Unit 2: Solving linear equations.	This unit extends students understanding of solving linear equations.

Units- Length of Time	Description
Unit 3: Equations in two variables.	This unit introduces students to the concepts of graphing linear functions.
Unit 4: Interpreting the Graphing of Linear Functions	This unit extends students understanding of the relationships of graphing linear functions.
Unit 5: Functions	This unit introduces students to the characteristics of functions.
Unit 6: Transformations, Congruence and Similarity	This unit introduces students to transformations, congruence and similarity of two-dimensional figures.
Unit 7: Angle Relationships	This unit extends students understanding of angle relationships in various shapes and with parallel lines.
Unit 8: Radicals and Pythagorean Theorem	This unit introduces students to irrational numbers and radicals. Students are introduced to the Pythagorean Theorem and work with its applications.
Unit 9: Volume	This unit extends students understanding of volume of three-dimensional figures.
Unit 10: Statistics	This unit extends students understanding of scatter plots and students are introduced to linear regression.
Unit 11: Scientific Notation	This unit introduces students to scientific notation and operations.
Unit 12: Solving	This unit introduces students to solving system of equations algebraically and graphically.

Units- Length of Time	Description
Systems of Equations	

NYS Standard	Links
	<u>NYS Next Gen Learning Standards</u>