

Department: Math

Course Title: Algebra 1

Grade Level: 8th Grade

Length of Course: 1 year

Primary Resources:

PA CC Standards and Eligible Content for Grade 8

PA CC Standards and Eligible Content for Algebra 1

McGrawHill Glencoe Algebra 1 textbook

Study Island

Units of Study:

Unit 1 (Daily Activity): Spiral Review Warm-up

Unit 2 (3 Weeks): Algebra Basics

Unit 3 (3 Weeks): Linear Equations

Unit 4 (2 Weeks): Tables and Intercepts

Unit 5 (2 Weeks): Domain and Range

Unit 6 (2 Weeks): Slope and Slope-Intercept Form

Unit 7 (3 Weeks): Write Linear Equations

Unit 8 (1 Week): Pythagorean Theorem

Unit 9 (3 Weeks): Systems of Equations

Unit 10 (2 Weeks): Linear Inequalities

Unit 11 (3 Weeks): Systems of Inequalities

Unit 12 (2 Weeks): Polynomial Expressions

Unit 13 (2 Weeks): Factor and Rational Expressions

Unit 14 (1 Week): Volume

Unit 15 (1 Week): Compound Probability

Unit 16 (2 Weeks): Data Displays and Analysis

Curriculum-Based Assessments:

Task Cards, Tests, Quizzes, Study Island, Benchmarks, Open-Ended Responses, Multiple Choice Practice

Standardized Assessments:

8th Grade Math PSSA and Math Keystone Exam

Description of Course:

The 8th grade math course is designed to equip students with the foundational knowledge and skills necessary to excel in both the 8th Grade Pennsylvania System of School Assessment (PSSA) and the Keystone Exams. Through a comprehensive curriculum, students will explore key mathematical concepts including algebra, geometry, statistics, and probability. Emphasis will be placed on problem-solving strategies, critical thinking, and mathematical reasoning to ensure students develop a

deep understanding of mathematical concepts and their real-world applications. The course will also focus on building fluency in mathematical operations, fostering mathematical communication, and promoting collaborative learning. Additionally, students will engage in hands-on activities, interactive discussions, and technology-enhanced lessons to enhance their mathematical proficiency and prepare them for success on both the PSSA and Keystone Exams. By the end of the course, students will have gained the confidence and proficiency needed to tackle challenging mathematical problems and excel in their academic endeavors.