

Norwood Public Schools

Grade 8 Math Curriculum Overview

Algebra 1

Description

Algebra 1 is a rigorous mathematics course taught at the accelerated (honors) level at the Coakley Middle School. It is a full Algebra 1 course in which students are challenged to extend their arithmetic skills to the abstract. It is essential that students be able to make logical analyses and reason correctly by using mathematical properties in symbolic form. Class practice and homework for skills development and reinforcement are important components of this course.

Learning Experiences:

Students will experience learning through many modalities in addition to routine classroom experiences. Concrete, basic, and arithmetic concepts are extended to abstract reasoning. Students will be challenged to make conjectures, test ideas, and arrive at rules that are universally valid. Classes utilize calculator demonstrations, PowerPoint presentations, internet sites, and the practice of algebraic skills. Students will work individually and will also discuss ideas, develop skills, and contribute in groups. The standards for mathematical practice are utilized to guide instruction.

Content Outline:

	Chapter	Name
Term 1	1	The Language of Algebra
	2	Real Numbers
	3	Solving Linear Equations
Term 2	4	Graphing Relations and Functions
	5	Analyzing Linear Equations
Term 3	6	Solving Linear Inequalities
	7	Solving Systems of Linear Equations and Inequalities
	10	Quadratic and Exponential Functions (sections 10-1 and 10-2 only)
	Supplement	Pythagorean Theorem, Area, Volume, and Geometry topics
Term 4	8	Polynomials
	9	Factoring

Resources Used:

Resources include the textbook, CD and online resources of the textbook, the EdHelper math website, and other internet resources. Textbook: Glencoe Algebra 1, 2005, ISBN: 0-07-865113-1