

Norwood Public Schools

Curriculum Overview

Algebra 1 (211 & 212)

Description:

Algebra 1 211 & 212 extend the ideas from the Intro to Algebra course taken at the Coakley Middle School or Pre-Algebra equivalent. It is a year-long course that is taught at the college-prep levels 1 and 2. The major components of this course will help prepare students to continue their mathematics education at Norwood High School in order to become college or career ready. A variety of presentation and assessment techniques will be utilized. The major topics that will be covered include: operations with integers and rational numbers, functions, solving linear equations, graphing linear equations, systems of equations, linear inequalities, quadratic functions, exponents, polynomials, radicals, sequences, statistics and probability. The course will also include the integration of basic geometry topics in preparation for Geometry in the following year as well as MCAS testing in tenth grade. While the 211 and 212 courses use the same textbook, the courses vary in pacing and depth of coverage, with the 211 course being more advanced.

Learning Experiences:

Students will experience learning through many formats in addition to routine classroom experiences. Students will receive direct instruction as well as hands on learning. The variety of technology utilized includes the use of the ENO Board in conjunction with software programs such as Easiteach and Workspace. Additional technological devices such as graphing calculators, MOBI and e-Clickers are used. Algebra 1 students are also exposed to resources in the computer lab and the library to complement the primary Algebra 1 content. Students complete projects and other various activities.

Course Content:

Chapter 1: Tools of Algebra
Chapter 2: Functions and Their Graphs
Chapter 3: Algebraic Concepts and Simple Equations
Chapter 4: Equations and Inequalities
Chapter 5: Graphing and Writing Linear Equations
Chapter 6: Systems of Equations and Inequalities
Chapter 7: Quadratic Equations and Functions
Chapter 8: Exponents and Exponential Functions
Chapter 9: Right Triangles and Radical Expressions
Chapter 10: Polynomials
Chapter 11: Rational Expressions and Functions

Note: The course has been aligned to satisfy the requirements of the March 2011 Common Core Standards for Mathematics. The order of topics covered may vary from the textbook. The curriculum map indicates the general timeline and sequencing.

Resources Used:

Prentice Hall, Algebra Tools for a Changing World, 2001, ISBN: 0-13-050141-7
Mathematics websites and software programs