

ARLINGTON PUBLIC SCHOOL: MATHEMATICS

C1 Algebra I

Course Description

The C1 Algebra I course is the first in a four-year college preparatory sequence. The students review rational number skills, study powers and roots, and apply properties of real numbers. Students will investigate patterns, relations, and functions, interpret and differentiate between linear and quadratic functions, solve equations, inequalities, and systems of equations. They will also simplify, transform, and operate with polynomials. The Geometry strand is addressed as students work in the coordinate plane and study perimeter and area. Content areas such as representing data and relationships in pairs of data and basic probability theory connect to the Statistics and Probability strand. Students will strengthen their problem solving, communicating, reasoning, and critical thinking skills.

Curriculum Topics	Benchmarks
<ul style="list-style-type: none">◆ Numeric skills◆ Central tendencies◆ Graphing; bar, circle, linear, quadratic◆ Order of operations◆ Evaluating algebraic expressions◆ Probability; theoretical/observational◆ Polynomials◆ Linear functions◆ Systems of equations◆ Equation solving◆ Quadratic functions◆ Perimeter/Area <p>AHS NEASC Expectations Addressed</p> <p>Arlington High School students will:</p> <ul style="list-style-type: none">◆ Gather, interpret and evaluate information.◆ Demonstrate the ability to read critically and to think logically and analytically.◆ Develop multiple strategies for problem solving.◆ Utilize current technology in their educational experiences	<p>The student will be able to:</p> <ul style="list-style-type: none">◆ Apply properties of real numbers◆ Find central tendencies◆ Evaluate algebraic expressions◆ Add, subtract, and multiply polynomials◆ Apply the distributive property◆ Differentiate between theoretical/observational probability◆ Gather and interpret information◆ Graph frequency bar graphs and circle graphs◆ Simplify polynomials◆ Find equations of lines◆ Solve linear and quadratic equations◆ Solve systems of equations◆ Graph linear equations◆ Recognize quadratic relationships◆ Use multiple strategies for problem solving

