

# Algebra I Curriculum Map

TOPIC & TEXTBOOK SECTIONS	Duration	Month(s)
<b>Unit 1: Expressions, Equations and Negative Numbers</b> <u>Chapters 1 &amp; 2:</u> Operations, Variables, Powers/Exponents, Order of Operations, Expressions, Equations, Negative Numbers, Commuting & Associating	3 wks	Aug/Sept
<b>Unit 2: Properties, Axioms and Equations</b> <u>Chapters 3 &amp; 4:</u> Solving Two Step Equations, Application of Equations, Algebraic Properties/Axioms, Harder Equations	3 wks	Sept
<b>Unit 3: Polynomials &amp; Radicals</b> <u>Chapter 5:</u> Polynomials, Names of Polynomials, Product of Binomials, Squaring a Binomial, Factoring Trinomials, Radicals, Irrational Numbers	4 wks	Sep/Oct
<b>Unit 4: Quadratic Equations</b> <u>Chapter 6:</u> Quadratic Formula, Evaluating Expressions with Radicals, Equations with Absolute Values and Squares, Completing the Square, Vertical Motion Problems, The Discriminant	4 wks	Oct/Nov
<b>Unit 5: Two Variable Expressions and Equations</b> <u>Chapter 7:</u> Cartesian Coordinate System, Graphs of Linear Equations, Slope, Slope-Intercept Form, Point-Slope Form, Standard Form, Systems of Equations	5 wks	Nov/Dec
<b>Unit 6: Probability &amp; Inequalities</b> <u>Supplement:</u> Counting Techniques, Permutations, Combinations <u>Chapter 13:</u> Number Line Graphs, Solving Inequalities, Compound Inequalities, Equations with Absolute Value, Inequalities with Absolute Value, Linear Inequalities, Systems of Inequalities, Evaluating Inequalities	4 wks	Jan
<b>Unit 7: Functions</b> <u>Chapter 14:</u> Function Terminology, Direct and Inverse Variation Functions, Linear Functions, Quadratic Functions	2 wks	Jan/Feb
<b>Unit 8: Properties of Exponents</b> <u>Chapter 9:</u> Prime Numbers, Exponentiation, Exponents with Products and Quotients, Negative and Zero Exponents, Powers of 10, Scientific Notation	2 wks	Feb
<b>Unit 9: More Operations with Polynomials</b> <u>Chapter 10:</u> Multiplying and Factoring Polynomials, Greatest Common Factor, Factoring with GCF, Factoring by Grouping, Solving Quadratic Equations by Factoring	3 wks	Feb/Mar
<b>Unit 10: Rational Algebraic Expressions</b> <u>Chapter 11:</u> Rational Expressions, Simplifying/Multiplying/Dividing Rational Expressions, Least Common Multiple, Adding/Subtracting Rational Expressions, Fractional Equations, Problems Involving Ratio and Proportion	4 wks	Mar/Apr
<b>Unit 11: Radical Algebraic Expressions</b> <u>Chapter 12:</u> Sums/Differences/Products/Quotients of Radicals, Binomials with Radicals, Square Roots of Variable Expressions, Pythagorean Theorem, Higher-Order Radicals, Rational and Irrational Numbers	3 wks	Apr/May