

ALGEBRA 2 CURRICULUM SUMMARY

The purpose of the curriculum summary is to present an overview of the curriculum. Parents, community, and teachers of other disciplines are the intended audience of the curriculum summary.

FIRST SEMESTER	SECOND SEMESTER
Unit 1: Expressions, Equations, & Inequalities	Unit 8: Radical Functions & Rational Exponents
<ul style="list-style-type: none"> • Solving Equations • Solving Inequalities • Absolute Value Equations & Inequalities 	<ul style="list-style-type: none"> • Exponent Properties • Simplifying Radical Expressions • Operations with Radical Expressions • Rational Exponents • Graphing Radical Functions • Solving Radical Equations
Unit 2: Functions Equations & Graphs	Unit 9: Exponential & Logarithmic Functions
<ul style="list-style-type: none"> • Functions • Domain & Range • Families of Functions • Linear Equations & Inequalities • Absolute Value Function & Graph 	<ul style="list-style-type: none"> • Exponential models • Properties of Exponential Function • Properties of Logarithmic Function • Solving Exponential and Logarithmic Equations • Natural Logarithms
Unit 3: Systems of Linear Equations	Unit 10: Sequences & Series
<ul style="list-style-type: none"> • Solving a System Graphically • Solving a System Algebraically • Graphing a System of Inequalities • Systems in Three Variables 	<ul style="list-style-type: none"> • Mathematical Patterns • Arithmetic Sequences & Series • Geometric Sequences & Series

Unit 4: Quadratic Functions	Unit 11: Probability & Statistics
<ul style="list-style-type: none"> • Graphing Quadratic Functions • Solving Quadratic Equations • Modeling with Quadratic Functions • Graphing & Solving Quadratic Inequalities 	<ul style="list-style-type: none"> • Permutations & Combinations • Odds • Probability Models
Unit 5: Complex Numbers	Unit 12: Conic Sections (Honors & 8 th Grade only)
<ul style="list-style-type: none"> • Simplifying square roots • Operations with Complex Numbers • Powers of i • Solving Quadratic equations that involve imaginary numbers 	<ul style="list-style-type: none"> • Parabolas • Circles • Ellipses • Hyperbolas
Unit 6: Polynomial Functions	Unit 13: Matrices (Honors & 8 th Grade only)
<ul style="list-style-type: none"> • Graphing Polynomial Functions • Solving Polynomial Equations • Operations with Polynomial Expressions • Modeling with Polynomial Functions 	<ul style="list-style-type: none"> • Operations with Matrices • Determinants and Inverses • Solving Systems with Matrices
Unit 7: Rational Functions	
<ul style="list-style-type: none"> • Inverse Variation • Graph of the Reciprocal Function • Operations with Rational Expressions • Solving Rational Equations 	