

# Ridgefield Public Schools

## Algebra 2 Curriculum at a Glance

### Overview

This course builds on the basic Algebra 1 skills and introduces new concepts and skills which are the essential tools for more advanced courses in mathematics. Topics include functions and inverses, polynomial functions, rational expressions and function, exponential functions, logarithmic functions, and inferential statistics. A graphing calculator is used regularly. A graphing calculator is required for this course.

Units of Study	
Unit 1:	<div>Linear Functions and Systems</div> <ul style="list-style-type: none"><li>• Key Features of functions</li><li>• Transformations of functions</li><li>• Piecewise defined functions</li><li>• Interval and Inequality Notation</li><li>• Linear and Nonlinear Inequalities and Systems of Inequalities</li></ul>
Unit 2:	<div>Quadratic Functions and Equations</div> <ul style="list-style-type: none"><li>• Vertex Form</li><li>• Standard Form</li><li>• Factored Form</li><li>• Completing the Square</li><li>• Quadratic Formula</li><li>• Complex numbers &amp; operations</li></ul>



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Unit 3:	<p>Polynomial Functions</p> <ul style="list-style-type: none"><li>• Key Features</li><li>• Graphing</li><li>• Factoring</li><li>• Dividing</li><li>• Theorems about roots</li><li>• Polynomial Equations</li><li>• Function operations (including composition)</li></ul>
Unit 4:	<p>Rational Functions</p> <ul style="list-style-type: none"><li>• Reciprocal Function</li><li>• Key features</li><li>• Graphing</li><li>• Operations with rational expressions</li><li>• Rational Equations</li></ul>
Unit 5:	<p>Rational Exponents and Radical Functions</p> <ul style="list-style-type: none"><li>• Inverse relations &amp; functions</li><li>• Key features</li><li>• Graphing</li><li>• <math>N</math>th roots, radicals and rational exponents</li><li>• Properties of exponents and radicals</li><li>• Equations with rational exponents &amp; radicals</li></ul>
Unit 6:	<p>Exponential and Logarithmic Functions</p> <ul style="list-style-type: none"><li>• Key features</li><li>• Graphing</li><li>• Exponential models</li><li>• Logarithms</li><li>• Logarithmic functions</li><li>• Properties of Logarithms</li><li>• Exponential &amp; Logarithmic Equations</li></ul>
Unit 7:	<p>Statistics</p> <ul style="list-style-type: none"><li>• Statistical Questions and Variables</li><li>• Statistical Studies and Sampling Methods</li><li>• Data Distributions</li></ul>



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|  | <ul style="list-style-type: none"><li>• Normal Distributions</li><li>• Probability with Two-Way Tables</li></ul> |
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