

Algebra I  
Curriculum Map

Units	Highlights
Unit 1: Verbal and Algebraic expressions and sentences/ equations	<ul style="list-style-type: none"> <li>• Converting between algebraic expressions and verbal expressions</li> <li>• Converting between algebraic equations verbal sentences</li> <li>• Setting up application problems – define variables, write out equation.</li> <li>• Distributive property</li> </ul>
Unit 2: Solving linear equations	<ul style="list-style-type: none"> <li>• Single step equations: additive inverse/ multiplicative inverse</li> <li>• Multi-step equations: distributing, combining like terms.</li> <li>• Variables on both sides of the equation</li> <li>• Ratios and proportions</li> </ul>
Unit 3: Relations and Functions (Emphasis on linear functions)	<ul style="list-style-type: none"> <li>• Relations and all its representations</li> <li>• Functions and all its representations</li> <li>• Graphing linear functions: table method</li> <li>• Domain and range</li> <li>• Zeros – from an equation and a graph</li> </ul>
Unit 4: Rate of change and Linear Functions	<ul style="list-style-type: none"> <li>• Rate of change and slope</li> <li>• Finding slope from a table, graph, or equation</li> <li>• Graphing linear functions: slope method</li> <li>• Writing equations of lines in slope-intercept form</li> <li>• Parallel and perpendicular lines</li> <li>• Lines of best fit</li> </ul>
Unit 5: Systems of Linear Equations	<ul style="list-style-type: none"> <li>• Graphing method</li> <li>• Substitution method</li> <li>• Linear combinations/ elimination method</li> <li>• Application problems</li> </ul>
Semester 2	Highlights
Unit 6: Exponents/RTD	<ul style="list-style-type: none"> <li>• Properties of exponents</li> <li>• Equations with exponents</li> <li>• RTD word problems</li> </ul>
Unit 7: Exponents Part II	<ul style="list-style-type: none"> <li>• Rational exponents</li> <li>• Conversion: radical and exponential forms</li> <li>• Solving exponential equations</li> <li>• Add/subtract/multiply radical expressions.</li> <li>• Revisit single distributive property</li> <li>• Introduce double distributive property.</li> <li>• Conjugates</li> </ul>
Unit 8: Polynomials	<ul style="list-style-type: none"> <li>• Adding/subtracting/multiplying</li> <li>• Classifying by number of terms and by highest degree</li> <li>• Revisit conjugates</li> </ul>
Unit 9: Factoring Polynomial Expressions	<ul style="list-style-type: none"> <li>• GCF/reverse distribute.</li> <li>• Difference of squares</li> <li>• Quadratic Trinomials: <math>a = 1</math> and <math>a \neq 0,1</math></li> </ul>

Unit 10: Solving Polynomial equations: Factoring	<ul style="list-style-type: none"> <li>• Applying factoring methods to solving polynomial equations</li> <li>• Zero Product Property</li> </ul>
Unit 11: Graphing Quadratic Functions	<ul style="list-style-type: none"> <li>• From a graph: identify vertex, AOS, y-int, and zeros.</li> <li>• From equation: min or max value, vertex, domain, and range.</li> <li>• Graph a quadratic function: table method</li> </ul>
Unit 12: Solving quadratic equations	<ul style="list-style-type: none"> <li>• Square Root Property</li> <li>• Quadratic Formula</li> <li>• Solving systems of linear and quadratic equations</li> </ul>
Unit 13: Functions Revisited	<ul style="list-style-type: none"> <li>• Combinations</li> <li>• Compositions</li> <li>• Using graphs, tables, and equations</li> </ul>

What distinguishes this class from the Honors Algebra I?

- Assessments --- will not need to memorize all the formulas.
- Problems ---- more typical problems on summative assessments, may look at special cases in formatives.
- Pacing --- slower
- Units may be broken down into several summative assessments in the regular class.
- For example when the concept of lines of best fit is introduced, the summative assessments will be conducted differently: Algebra I will have data given to them that will fit each time of correlation and will not do the lines of best fit without a calculator whereas the honors will have to construct their own data tables representing each correlation and use both a calculator and no calculator to construct lines of best fit.