Honors Algebra I
Curriculum Map

Units	Highlights
Unit 1: Verbal and Algebraic expressions and sentences/ equations	• Converting between algebraic expressions and verbal expressions • Converting between algebraic equations verbal sentences • Setting up application problems – define variables, write out equation. • Distributive property
Unit 2: Solving linear equations	• Single step equations: additive inverse/ multiplicative inverse • Multi-step equations: distributing, combining like terms. • Variables on both sides of the equation • Ratios and proportions
Unit 3: Relations and Functions (Emphasis on linear functions)	• Relations and all its representations • Functions and all its representations • Graphing linear functions: table method • Domain and range • Zeros – from an equation and a graph
Unit 4: Rate of change and Linear Functions	• Rate of change and slope • Finding slope from a table, graph, or equation • Graphing linear functions: slope method • Writing equations of lines in slope-intercept form • Parallel and perpendicular lines • Lines of best fit
Unit 5: Systems of Linear Equations	• Graphing method • Substitution method • Linear combinations/ elimination method • Application problems
Semester 2	**Highlights**
Unit 6: Exponents/RTD	• Properties of exponents • Equations with exponents • RTD word problems
Unit 7: Exponents Part II	• Rational exponents • Conversion: radical and exponential forms • Solving exponential equations • Add/subtract/multiply radical expressions. • Revisit single distributive property • Introduce double distributive property. • Conjugates
Unit 8: Polynomials	• Adding/subtracting/multiplying • Classifying by number of terms and by highest degree • Revisit conjugates
Unit 9: Factoring Polynomial Expressions	• GCF/reverse distribute. • Difference of squares • Quadratic Trinomials: a = 1 and a ≠0,1

Unit 10: Solving Polynomial equations: Factoring	• Applying factoring methods to solving polynomial equations • Zero Product Property
Unit 11: Graphing Quadratic Functions	• From a graph: identify vertex, AOS, y-int, and zeros. • From equation: min or max value, vertex, domain, and range. • Graph a quadratic function: table method
Unit 12: Solving quadratic equations	• Square Root Property • Quadratic Formula • Solving systems of linear and quadratic equations
Unit 13: Functions Revisited	• Combinations • Compositions • Using graphs, tables, and equations

What distinguishes this class from the regular Algebra I?

- Assessments --- will need to memorize all formulas.
- Problems ---- more special cases, more challenging
- Pacing --- faster
- 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.