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 Common Core: A-CED.1
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 Common Core: A-REI.3, A-CED.1
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 Common Core: F-IF.7a, F-IF.6, A-CED.2, F-IF.2
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 Common Core: F-IF.7a, F-IF.6, A-CED.2, F-IF.2, S-ID.6c
Unit 5: Systems of Linear Equations	• Graphing method • Substitution method • Linear combinations/ elimination method • Application problems Common Core: A-REI.6
Semester 2	**Highlights**
Unit 6: Inequalities	• Introduction to interval notation • Solving single and multiple step inequalities • Graphing inequalities: one dimensional and two dimensional Common Core: A-REI.3
Unit 7: Exponents	• Properties of exponents • Equations with exponents • RTD word problems Common Core: A-SSE.1,A-APR.1,A-REI.3
Unit 8: Exponents Part II	• Rational exponents • Conversion: radical and exponential forms

	● Solving exponential equations ● Add/subtract/multiply radical expressions. Common Core: A-SSE.2, A-REI.2
Unit 9: Polynomials	● Adding/subtracting/multiplying ● Classifying by number of terms and by highest degree ● Revisit conjugates Common Core: A-SSE.1,A-APR.1,A-REI.3
Unit 10: Factoring Polynomial Expressions	● GCF/reverse distribute. ● Difference of squares ● Quadratic Trinomials: a = 1 and a ≠0,1 Common Core: A-SSE.2,A-SSE.3a, A-REI.4b, A-APR.1
Unit 11: Solving Polynomial equations: Factoring	● Applying factoring methods to solving polynomial equations ● Zero Product Property Common Core: A-SSE.2,A-SSE.3a, A-REI.4b, A-APR.1
Unit 12: Graphing Quadratic Functions	● From a graph: identify vertex, AOS, y-int, and zeros. ● Use of a graphing calculator to find the above Common Core: A-REI.11, F-IF.7a
Unit 13: Solving quadratic equations	● Quadratic Formula Common Core: A-REI. 4b

Spend time doing PSAT prep

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.