

# Algebra I Curriculum Map 2013-2014

 Ms. Straus 

Unit & Gov't Standards	Vocabulary	Skills	Assessments	Personalization
Foundations of Algebra  2.0 1.0 1.1	<ul style="list-style-type: none"> <li>-variable; -constant</li> <li>-numerical expression</li> <li>-algebraic expression</li> <li>-evaluate</li> <li>-replacement set</li> <li>-real numbers</li> <li>-absolute value</li> <li>-opposite</li> <li>-additive inverse</li> <li>-reciprocal</li> <li>-multiplicative inverse</li> <li>-power; -base</li> <li>-exponent; -square root</li> <li>-principal square root</li> <li>-perfect square</li> <li>-cube root</li> <li>-natural numbers</li> <li>-whole numbers</li> <li>-integers</li> <li>-rational numbers</li> <li>-terminating decimal</li> <li>-repeating decimal</li> <li>-irrational number</li> </ul>	Review of Pre-Algebra <ul style="list-style-type: none"> <li>-variables and expressions</li> <li>-adding and subtracting real numbers</li> <li>-multiplying and dividing real numbers</li> <li>-powers and exponents</li> <li>-roots and irrational numbers</li> </ul>	-End of Unit Quiz	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>

Exponents 2.0	<ul style="list-style-type: none"> <li>-scientific notation</li> <li>-index</li> </ul>	<p>RSCS I Can 8.1</p> <ul style="list-style-type: none"> <li>-integer exponents</li> <li>-powers of 10 and scientific notation</li> <li>-multiplication properties of exponents</li> <li>-division properties of exponents</li> <li>-fractional exponents</li> </ul>	<ul style="list-style-type: none"> <li>-End of Unit Quiz</li> <li>-Mastery Quiz 8.1</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>
Equations 4.0 5.0 15.0 3.0	<ul style="list-style-type: none"> <li>-equation</li> <li>-solution of an equation</li> <li>-solution set</li> <li>-equivalent equations</li> <li>-identity</li> <li>-ratio</li> <li>-rate</li> <li>-cross products</li> <li>-scale drawing</li> <li>-proportion</li> <li>-unit rate</li> <li>-percent</li> <li>-scale</li> <li>-scale model</li> </ul>	<p>RSCS I Can 8.2 (start) RSCS I Can 8.3 (start) RSCS Key Skill</p> <ul style="list-style-type: none"> <li>-solving one-step equations</li> <li>-solving two-step equations</li> <li>-solving multi-step equations</li> <li>-solving equations with variables on both sides</li> <li>-solving proportions</li> <li>-solving absolute-value equations</li> </ul>	<ul style="list-style-type: none"> <li>-Mid-Unit Quiz</li> <li>-End of Unit Test</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>

<p>Inequalities</p> <p>5.0</p> <p>3.0</p>	<ul style="list-style-type: none"> <li>-inequality</li> <li>-solution of an inequality</li> <li>-equivalent inequality</li> <li>-compound inequality</li> <li>-intersection</li> <li>-union</li> </ul>	<p>RSCS I Can 8.2 (finish)</p> <p>RSCS I Can 8.3 (finish)</p> <p>RSCS Key Skill</p> <ul style="list-style-type: none"> <li>-graphing and writing inequalities</li> <li>-solving inequalities by adding, subtracting, multiplying, and dividing</li> <li>-solving two-step and multi-step inequalities</li> <li>-solving inequalities with variables on both sides</li> <li>-solving compound inequalities</li> <li>-solving absolute-value inequalities</li> </ul>	<ul style="list-style-type: none"> <li>-Mid-Unit Quiz</li> <li>-End of Unit Test</li> <li>-Mastery Quiz 8.2</li> <li>-Mastery Quiz 8.3</li> <li>-Milestone Test 1</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>
<p>Linear Functions</p> <p>16.0</p> <p>6.0</p> <p>7.0</p> <p>17.0</p> <p>18.0</p> <p>8.0</p>	<ul style="list-style-type: none"> <li>-continuous graph</li> <li>-discrete graph</li> <li>-relation; -domain</li> <li>-range; -function</li> <li>-dependent variable</li> <li>-independent variable</li> <li>-function notation</li> <li>-linear equation</li> <li>-linear function</li> <li>-x-intercept</li> <li>-y-intercept</li> <li>-rate of change</li> <li>-rise; -run; -slope</li> <li>-direct variation</li> <li>-constant of variation</li> <li>-parallel lines</li> <li>-perpendicular lines</li> </ul>	<p>RSCS I Can 8.4 &amp; 8.5</p> <ul style="list-style-type: none"> <li>-graphing relationships</li> <li>-relations and functions</li> <li>-writing functions</li> <li>-linear equations and functions</li> <li>-using intercepts</li> <li>-slope</li> <li>-direct variation</li> <li>-solve-intercept form</li> <li>-point-slope form</li> <li>-slopes of parallel and perpendicular lines</li> </ul>	<ul style="list-style-type: none"> <li>-2 Mid-Unit Quizzes</li> <li>-End of Unit Test</li> <li>-Mastery Quiz 8.4 &amp; 8.5</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>

<p>Systems of Equations and Inequalities</p> <p>5.0 9.0 15.0 6.0</p>	<ul style="list-style-type: none"> <li>-system of linear equations</li> <li>-solution of a system of linear equations</li> <li>-consistent system</li> <li>-inconsistent system</li> <li>-independent system</li> <li>-dependent system</li> <li>-distance=rate x time</li> <li>-linear inequality</li> <li>-solution of a linear inequality</li> <li>-system of linear inequalities</li> <li>-solution of a system of linear inequalities</li> </ul>	<p>RSCS I Can 8.6</p> <ul style="list-style-type: none"> <li>-solving systems by graphing</li> <li>-solving systems by substitution</li> <li>-solving systems by elimination</li> <li>-solving special systems</li> <li>-applying systems</li> <li>-solving linear inequalities</li> <li>-solving systems of linear inequalities</li> </ul>	<ul style="list-style-type: none"> <li>-Mid-Unit Quiz</li> <li>-End of Unit Test</li> <li>-Mastery Quiz 8.6</li> <li>-Milestone Test 2</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>
<p>Polynomials</p> <p>10.0</p>	<ul style="list-style-type: none"> <li>-monomial</li> <li>-degree of a monomial</li> <li>-polynomial</li> <li>-standard form a polynomial</li> <li>-leading coefficient</li> <li>-quadratic; -cubic</li> <li>-trinomial</li> <li>-cubic</li> <li>-binomial</li> <li>-root</li> <li>-perfect-square trinomial</li> <li>-difference of two squares</li> </ul>	<p>RSCS I Can 8.7</p> <ul style="list-style-type: none"> <li>-polynomials</li> <li>-adding and subtracting polynomials</li> <li>-multiplying polynomials</li> <li>-special products of polynomials</li> </ul>	<ul style="list-style-type: none"> <li>-End-of Unit Quiz</li> <li>-Mastery Quiz 8.7</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>

<p>Factoring Polynomials</p> <p>11.0 12.0</p>	<ul style="list-style-type: none"> <li>-prime factorization</li> <li>-greatest common factor</li> </ul>	<p>RSCS I Can 8.8 &amp; 8.9</p> <ul style="list-style-type: none"> <li>-factors and greatest common factors</li> <li>-factoring by GCF</li> <li>-factoring <math>x^2 + bx + c</math></li> <li>-factoring <math>ax^2 + bx + c</math></li> <li>-factoring special products</li> <li>-choosing a factoring method</li> </ul>	<ul style="list-style-type: none"> <li>-Mid-Unit Quiz</li> <li>-End of Unit Test</li> <li>-Mastery Quiz 8.8 &amp; 8.9</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>
<p>Quadratic Functions and Equations</p> <p>17.0 21.0 14.0 2.0 19.0 20.0 22.0 23.0</p>	<ul style="list-style-type: none"> <li>-quadratic equation</li> <li>-quadratic function</li> <li>-parabola</li> <li>-minimum value</li> <li>-maximum value</li> <li>-vertex</li> <li>-zero of a function</li> <li>-axis of symmetry</li> <li>-completing the square</li> <li>-discriminant</li> </ul>	<p>RSCS Key Skill</p> <ul style="list-style-type: none"> <li>-quadratic equations and functions</li> <li>-characteristics of quadratic functions</li> <li>-graphing quadratic functions</li> <li>-solving quadratic equations by graphing</li> <li>-solving quadratic equations by factoring</li> <li>-solving quadratic equations by using square roots</li> <li>-completing the square</li> <li>the quadratic formula</li> <li>-the discriminant</li> </ul>	<ul style="list-style-type: none"> <li>-Mid-Unit Quiz</li> <li>-End-of Unit Test</li> </ul>	<ul style="list-style-type: none"> <li>-small group instruction</li> <li>-real-world applications</li> <li>-pictorial representations</li> <li>-tiered stations</li> <li>-varied homework</li> <li>-end of unit tic-tac-toe projects</li> <li>-exemplars of work posted</li> <li>-technology incorporation</li> </ul>

Rational Functions and Equations	<ul style="list-style-type: none"> <li>-inverse variation</li> <li>-rational function</li> <li>-excluded value</li> <li>-discontinuous function</li> </ul>	RSCS I Can 8.10	-Mid-Unit Quiz	-small group instruction
13.0	-asymptote	-inverse variation	-End of Unit Test	-real-world applications
12.0	-rational expression	-rational functions	-Mastery Quiz 8.10	-pictorial representations
10.0	-rational equation	-simplifying rational expressions		-tiered stations
15.0	-extraneous solution	-multiplying and dividing rational expressions		-varied homework
		-adding and subtracting rational expressions		-end of unit tic-tac-toe projects
		-dividing polynomials		-exemplars of work posted
		-solving rational equations		-technology incorporation
		-applying rational equations		

## NOTES TO PARENTS:

⚙️ Mastery Quizzes are written by RSCS and have 5 Multiple Choice questions on them to assess mastery (do students really understand?) of the RSCS I Can statement (see [www.teamstraus.com](http://www.teamstraus.com)) for more information on I Can statements.

⚙️ Milestone Tests are written by RSCS and have 20 Multiple Choice questions on them to assess mastery AND retention (keeping the information in students' brains over a period of time) of the I Can statements learned in the past.

⚙️ Standard 24.0 and 25.0 embedded throughout year