

## Marietta City Schools Pacing Guide

**Subject: Algebra 1**

**Grade Level: 8 (high school credit)**

**Time Frame: Year Long**

Month / Week	CCS Benchmarks	Skills/Activities	Resources	Assessment
First nine weeks	<p><b>Chapter 1 – Expressions, Equations, and Functions</b>                      (A.SSE.1a, A.SSE.2)                      (A.SSE.1b, A.SSE.2)                      (A.SSE.1b, A.SSE.2)                      (A.SSE.1a, A.SSE.2)                      (A.CED.1, A.REI.3)                      (A.REI.10, F.IF.1)                      (F.IF.1, F.IF.2)                      (F.IF.4)</p> <p><b>Chapter 2 – Linear Equations</b>                      (A.CED.1)                      (A.REI.1, A.REI.3)                      (A.REI.1, A.REI.3)                      (A.REI.1, A.REI.3)                      (A.REI.1, A.REI.3)                      (A.REI.1, A.REI.3)                      (N.Q.1, A.REI.3)                      (A.CED.4, A.REI.3)                      (A.REI.1, A.REI.3)</p>	<p><b>Chapter 1 – Expressions, Equations, and Functions</b></p> <ul style="list-style-type: none"> <li>○ Variables and Expressions</li> <li>○ Order of Operations</li> <li>○ Properties of Numbers</li> <li>○ The Distributive Property</li> <li>○ Equations</li> <li>○ Relations</li> <li>○ Functions</li> <li>○ Interpreting Graphs of Functions</li> </ul> <p>***PEMDAS relay races                      ***Function venn diagram activity                      ***Interpreting Graphs of Functions activity                      ***Mid-Chapter Kahoot quiz</p> <p><b>Chapter 2 – Linear Equations</b></p> <ul style="list-style-type: none"> <li>○ Writing Equations</li> <li>○ Solving One-Step Equations</li> <li>○ Solving Multi-Step Equations</li> <li>○ Solving Equations with the Variables on Each Side</li> <li>○ Solving Equations Involving Absolute Value</li> <li>○ Ratios and Proportions</li> </ul>	Algebra textbook Ti-84 Graphing calculator Smartboard Graph paper Worksheets	Daily completion of homework Chapter Quizzes Chapter Test

		<ul style="list-style-type: none"> <li>○ Percent of Change</li> <li>○ Literal Equations and Dimensional Analysis</li> <li>○ Weighted Averages</li> </ul> <p>***Dry erase board practice with one, two, multi step equations</p> <p>***Absolute value equation practice</p> <p>***Percent of Change scavenger hunt</p> <p>***Percent of Change station activity</p> <p>***Discounts, Tips, Taxes activity</p> <p>***Literal Equation board races</p> <p>***Mid-Chapter Kahoot quiz</p>		
2nd Nine Weeks	<p><b>Chapter 3 – Linear Functions</b> (F.IF.4, F.IF.7a) (A.REI.10, F.IF.7a) (F.IF.6, F.LE.1a) (A.REI.10, F.IF,7a) (F.BF.2, F.LE.2) (F.LE.1b, F.LE.2)</p> <p><b>Chapter 4 – Equations of Linear Functions</b> (F.IF.7a, S.ID.7) (F.BF.1, F.LE.2) (F.IF.2, F.LE.2) (F.LE.2, S.ID.7) (S.ID.6a, S.ID.6c) (S.ID.6, S.ID.8) (A.CED.2, F.BF.4a)</p>	<p><b>Chapter 3 – Linear Functions</b></p> <ul style="list-style-type: none"> <li>○ Graphing Linear Equations</li> <li>○ Solving Linear Equations by Graphing</li> <li>○ Rate of Change and Slope</li> <li>○ Direct Variation</li> <li>○ Arithmetic Sequences as Linear Functions</li> <li>○ Proportional and Nonproportional Relationships</li> </ul> <p>***Worksheets and Study Guide practice problems</p> <p>***Graphing practice activities</p> <p><b>Chapter 4 – Equations of Linear Functions</b></p> <ul style="list-style-type: none"> <li>○ Graphing Equations in Slope-Intercept Form</li> <li>○ Writing Equations in Slope-Intercept Form</li> <li>○ Writing Equations in Point-Slope Form</li> </ul>	Algebra textbook Ti-84 Graphing calculator Smartboard Graph paper Worksheets	Daily completion of homework Chapter Quizzes Chapter Test

		<ul style="list-style-type: none"> <li>○ Parallel and Perpendicular Lines</li> <li>○ Scatter Plots and Lines of Fit</li> <li>○ Regression and Median-Fit Lines</li> <li>○ Inverse Linear Functions</li> </ul> <p>***Formula foldable</p> <p>***Graphing practice activities</p> <p>***Dry erase board practice problems</p>		
3rd Nine Weeks	<p><b>Chapter 5 – Linear Inequalities</b>  (A.CED.1, A.REI.3)  (A.CED.1, A.REI.3)  (A.CED.1, A.REI.3)  (A.CED.1, A.REI.3)  (A.CED.1, A.REI.3)  (A.CED.3, A.REI.12)</p> <p><b>Chapter 6 – Systems of Linear Equations and Inequalities</b>  (A.CED.3, A.REI.6)  (A.CED.3, A.REI.6)  (A.CED.2, A.REI.6)  (A.REI.5, A.REI.6)  (A.REI.6)  (A.REI.12)</p>	<p><b>Chapter 5 – Linear Inequalities</b></p> <ul style="list-style-type: none"> <li>○ Solving Inequalities by Addition and Subtraction</li> <li>○ Solving Inequalities by Multiplication and Division</li> <li>○ Solving Multi-Step Inequalities</li> <li>○ Solving Compound Inequalities</li> <li>○ Inequalities Involving Absolute Value</li> <li>○ Graphing Inequalities in Two Variables</li> </ul> <p>***Dry erase board practice problems</p> <p>***Inequality Task Cards/Study cards</p> <p>***Inequality Graphic Organizer</p> <p>***Absolute value inequality practice guide</p> <p>***Graphing Linear Inequalities color matching activity</p> <p><b>Chapter 6 – Systems of Linear Equations and Inequalities</b></p> <ul style="list-style-type: none"> <li>○ Graphing Systems of Equations</li> <li>○ Substitution</li> <li>○ Elimination Using Addition and</li> </ul>	Algebra textbook Ti-84 Graphing calculator Smartboard Graph paper Worksheets	Daily completion of homework Chapter Quizzes Chapter Test

	<p><b>Chapter 7 – Exponents and Exponential Functions</b>  (A.SSE.2, F.IF.8b)  (A.SSE.2, F.IF.8b)  (N.RN.1, N.RN.2)  (A.SSE.2)  (F.IF.7e, F.LE.2)  (F.IF.8b, F.LE.2)  (F.BF.2, F.LE.1)  (F.IF.3, F.BF.2)</p>	<p>Subtraction</p> <ul style="list-style-type: none"> <li>○ Elimination Using Multiplication</li> <li>○ Applying Systems of Linear Equations</li> <li>○ Systems of Inequalities</li> </ul> <p>***Graphing Calculator lab  ***Systems with graphing practice guide  ***Determining Best Method Kahoot quiz  ***Systems of Equations color matching activity  ***Systems review packet  ***Smart Notebook Review activity</p> <p><b>Chapter 7 – Exponents and Exponential Functions</b></p> <ul style="list-style-type: none"> <li>○ Multiplication Properties of Exponents</li> <li>○ Division Properties of Exponents</li> <li>○ Rational Exponents Scientific Notation</li> <li>○ Exponential Functions Growth and Decay</li> <li>○ Geometric Sequences as Exponential Functions Recursive Formulas</li> </ul> <p>***"I have, who has" exponent rule refresher game  ***Formula sheet completed together as a class  ***Study guide completed together as a class</p>		
4th Nine Weeks	<b>Chapter 8 – Quadratic Expressions and</b>	<b>Chapter 8 – Quadratic Expressions and Equations</b>	Algebra textbook Ti-84 Graphing calculator	Daily completion of homework

	<p><b>Equations</b> (A.APR.1)</p> <p>(A.APR.1)</p> <p>(A.APR.1)</p> <p>(A.APR.1)</p> <p>(A.SSE.2, A.SSE.3a)</p> <p>(A.SSE.3a, A.REI.4b)</p> <p>(A.SSE.3a, A.REI.4b)</p> <p>(A.SSE.3a, A.REI.4b)</p> <p>(A.SSE.3a, A.REI.1)</p> <p><b>Chapter 9 – Quadratic Functions and Equations</b> (F.IF.4, F.IF.7a)</p> <p>(A.REI.4b, F.IF.7a)</p> <p>(A.SSE.3b, F.IF.7a)</p> <p>(A.REI.4, F.IF.8a)</p> <p>(A.REI.4)</p> <p>(F.IF.4, F.IF.7b)</p>  <p><b>Chapter 10 – Radical Functions &amp; Geometry</b> (F.IF.4, F.IF.7b)</p> <p>(A.REI.4a)</p>	<ul style="list-style-type: none"> <li>o Adding and Subtracting Polynomials</li> <li>o Multiplying a Polynomial by a Monomial</li> <li>o Multiplying Polynomials</li> <li>o Special Products</li> <li>o Using the Distributive Property</li> <li>o Solving <math>x^2 + bx + c = 0</math></li> <li>o Solving <math>ax^2 + bx + c = 0</math></li> <li>o Differences of Squares</li> <li>o Perfect Squares</li> </ul> <p>***Practice guides</p> <p>***Factoring board races</p> <p>***Dry erase board practice problems</p> <ul style="list-style-type: none"> <li>● <b>Chapter 9 – Quadratic Functions and Equations</b> <ul style="list-style-type: none"> <li>o Graphing Quadratic Functions</li> <li>o Solving Quadratic Equations by Graphing</li> <li>o Transformations of Quadratic Functions</li> <li>o Solving Quadratic Equations by Completing the Square</li> <li>o Solving Quadratic Equations by Using the Quadratic Formula</li> <li>o Special Functions</li> </ul> </li> </ul> <p>***Graphing practice activities</p> <p>***Practice Guides</p> <ul style="list-style-type: none"> <li>● <b>Chapter 10 – Quadratic Functions and Equations</b> <ul style="list-style-type: none"> <li>o Square Root Functions</li> <li>o Simplifying Radical Expressions</li> </ul> </li> </ul>	<p>Smartboard Graph paper Worksheets</p>	<p>Chapter Quizzes Chapter Test</p>
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	(N.RN.2) (N.RN.2, A.CED.2) (8.G.6, 8.G.7)	<ul style="list-style-type: none"><li>o Operations with Radical Expressions</li><li>o Radical Equations</li><li>o Pythagorean Theorem (I also taught this in their 7th/8th grade Pre-Algebra class)</li></ul>		