

**Algebra I Teaching & Learning Framework**

Semester 1			Semester 2		
Unit 1 4 weeks	Unit 2 5 weeks	Unit 3 9 weeks	Unit 4 6 weeks	Unit 5 5 weeks	Unit 6 7 weeks
<b>Relationships Between Quantities &amp; Expressions</b>	<b>Reasoning with Linear Equations &amp; Inequalities</b>	<b>Modeling &amp; Analyzing Quadratic Functions</b>	<b>Modeling &amp; Analyzing Exponential Functions</b>	<b>Comparing &amp; Contrasting Functions</b>	<b>Describing Data Review &amp; Extend</b>
<p><b>MGSE9-12.N.RN.2-3</b> (Properties of rational &amp; irrational numbers)</p> <p><b>MGSE9-12.N.Q.1-3</b> (Reason quantitatively &amp; use units to solve problems)</p> <p><b>MGSE9-12.A.SSE.1</b> (Interpret expressions in context)</p> <p><b>MGSE9-12.A.SSE.1a-b</b> (Interpret formulas &amp; expressions in context)</p> <p><b>MGSE9-12.A.APR.1</b> (Add, subtract &amp; multiply polynomials)</p>	<p><b>MGSE9-12.A.CED.1-4</b> (Create equations that describe numbers or relationships)</p> <p><b>MGSE9-12.A.REI.1,3,5</b> (Solve equations &amp; inequalities 1-2 variable)</p> <p><b>MGSE9-12.A.REI.6</b> (Solve systems)</p> <p><b>MGSE9-12.A.REI.10-12</b> (Solve equations &amp; inequalities 2 variables)</p> <p><b>MGSE9-12.F.BF.1</b> (Write a function)</p> <p><b>MGSE9-12.F.BF.1a,2</b> (Arithmetic &amp; geometric sequences)</p> <p><b>MGSE9-12.F.IF.1</b> (Input vs. output)</p> <p><b>MGSE9-12.F.IF.2</b> (Function notation)</p> <p><b>MGSE9-12.F.IF.3-4</b> (Sequences &amp; characteristics)</p> <p><b>MGSE9-12.F.IF.5-6</b> (Rate of change)</p> <p><b>MGSE9-12.F.IF.7,7a,9</b> (Analyze functions)</p>	<p><b>MGSE9-12.A.SSE.2</b> (Interpret the structure of expressions)</p> <p><b>MGSE9-12.A.SSE.3,3a-b</b> (Equivalent forms of expressions)</p> <p><b>MGSE9-12.A.CED.1-2,4</b> (Create equations that describe numbers or relationships)</p> <p><b>MGSE9-12.A.REI.1</b> (Justify how to solve an equation)</p> <p><b>MGSE9-12.A.REI.4,4a-b</b> (Methods of solving quadratics)</p> <p><b>MGSE9-12.F.BF.1,3</b> (Write a function &amp; build new functions)</p> <p><b>MGSE9-12.F.IF.1</b> (Input vs. output)</p> <p><b>MGSE9-12.F.IF.2</b> (Function notation)</p> <p><b>MGSE9-12.F.IF.4</b> (Characteristics)</p> <p><b>MGSE9-12.F.IF.5-6</b> (Rate of change)</p> <p><b>MGSE9-12.F.IF.7,7a</b> (Graph functions)</p> <p><b>MGSE9-12.F.IF.8</b> (Write a function)</p> <p><b>MGSE9-12.F.IF.8a,9</b> (Compare &amp; contrast functions)</p>	<p><b>MGSE9-12.A.CED.1-2</b> (Create equations 1-2 variables)</p> <p><b>MGSE9-12.A.REI.1</b> (Justify how to solve an equation)</p> <p><b>MGSE9-12.F.BF.1</b> (Write a function)</p> <p><b>MGSE9-12.F.BF.1a,2</b> (Arithmetic &amp; geometric sequences)</p> <p><b>MGSE9-12.F.BF.3</b> (Build new functions)</p> <p><b>MGSE9-12.F.IF.1</b> (Input vs. output)</p> <p><b>MGSE9-12.F.IF.2</b> (Function notation)</p> <p><b>MGSE9-12.F.IF.3-4</b> (Sequences &amp; characteristics)</p> <p><b>MGSE9-12.F.IF.5-6</b> (Rate of change)</p> <p><b>MGSE9-12.F.IF.7,7e</b> (Graph functions)</p> <p><b>MGSE9-12.F.IF.9</b> (Compare functions)</p>	<p><b>MGSE9-12.F.LE.1</b> (Linear vs exponential)</p> <p><b>MGSE9-12.F.LE.1a</b> (Growth of functions)</p> <p><b>MGSE9-12.F.LE.1b,c,2-3</b> (Changes in rate and relating to context)</p> <p><b>MGSE9-12.F.LE.5</b> (Interpret parameters)</p> <p><b>MGSE9-12.F.BF.3</b> (Build new functions)</p> <p><b>MGSE9-12.F.IF.1</b> (Input vs. output)</p> <p><b>MGSE9-12.F.IF.2</b> (Function notation)</p> <p><b>MGSE9-12.F.IF.4</b> (Characteristics)</p> <p><b>MGSE9-12.F.IF.5-6</b> (Rate of change)</p> <p><b>MGSE9-12.F.IF.7</b> (Graph functions)</p> <p><b>MGSE9-12.F.IF.9</b> (Compare functions)</p>	<p><b>MGSE9-12.S.ID.1</b> (Dot plots, histograms &amp; box plots)</p> <p><b>MGSE9-12.S.ID.2</b> (Compare data distribution)</p> <p><b>MGSE9-12.S.ID.3</b> (Shape, center &amp; spread)</p> <p><b>MGSE9-12.S.ID.5-6</b> (Bivariate data)</p> <p><b>MGSE9-12.S.ID.6a,c</b> (Function of best fit)</p> <p><b>MGSE9-12.S.ID.7-9</b> (Slope, correlation coefficient, causation &amp; correlation)</p> <p><b>Review: All standards by differentiating for student needs</b></p> <p><b>Extend:</b> <b>MGSE9-12.G.CO.1</b> (Precise definitions)</p>
<p>These units were written to build upon concepts from prior units, so later units contain tasks that depend upon the concepts addressed in earlier units. All units will include the Mathematical Practices and indicate skills to maintain</p>					

**NOTE:** Mathematical standards are interwoven and should be addressed throughout the year in as many different units and tasks as possible in order to stress the natural connections that exist among mathematical topics.

**Grades 9-12 Key: Algebra Strand:** SSE = Seeing Structure in Expressions, APR = Arithmetic with Polynomial and Rational Expressions, CED = Creating Equations, REI = Reasoning with Equations and Inequalities

**Functions Strand:** IF = Interpreting Functions, LE = Linear and Exponential Models, BF = Building Functions, TF = Trigonometric Functions

**Geometry Strand:** CO = Congruence, SRT = Similarity, Right Triangles, and Trigonometry, C = Circles, GPE = Expressing Geometric Properties with Equations, GMD = Geometric Measurement and Dimension,

MG = Modeling with Geometry

**Statistics and Probability Strand:** ID = Interpreting Categorical and Quantitative Data, IC = Making Inferences and Justifying Conclusions, CP = Conditional Probability and the Rules of Probability, MD = Using Probability to Make Decisions

**Algebra I Teaching & Learning Framework**

**Block Schedule**

Unit 1 2 weeks	Unit 2 2.5 weeks	Unit 3 4.5 weeks	Unit 4 3 weeks	Unit 5 2.5 weeks	Unit 6 3.5 weeks
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