

Algebra 1 Pacing Guide – Revised for Fall 2020

Unit 1 (Curriculum): Modeling with Linear Equations and Inequalities					
Traditional	Integrated	Unit 1 – Real Numbers and Connections to Algebra			
Days 1-10	Days 1-20	Module 1 – Real Numbers and Real-World Quantities			
		1.1	Real Numbers	CC.9-12.N.Q.1	
		1.2	Radicals and Rational Exponents	CC.9-12.N.Q.1	
		1.3	Precision and Accuracy in Calculations	CC.9-12.N.Q.3	
		Module 2 – Linear Equations and Inequalities in One Variable			
		2.1	Write, Interpret, and Simplify Expressions	CC.9-12.A.SSE.1	
		2.2	Write and Solve Equations	CC.9-12.A.CED.1	
		2.3	Rewrite Formulas and Solve Literal Equations	CC.9-12.1.CED.4	
		2.4	Write and Solve Inequalities	CC.9-12.A.REI.3	
		2.5	Write and Solve Compound Inequalities	CC.9-12.A.REI.3	
		Unit 2 – Linear Functions and Equations			
Days 11-20	Days 21-40	Module 3 – Linear Equations in Two Variables			
		3.1	Linear Equations in Standard Form	CC.9-12.F.IF.7a	
		3.2	Slopes of Lines and Rates of Change	CC.9-12.F.IF.6	
		Module 4 – Linear Functions and Models			
		4.1	Relations and Functions	CC.9-12.A.CED.2	
		4.2	Linear Functions	CC.9-12.A.CED.2	
		4.3	Characteristics of Linear Functions	CC.9-12.A.CED.2	
		4.4	Linear Models and Point-Slope Form	CC.9-12.A.CED.2	
		Module 5 – Relationships Among Linear Functions			
		5.1	Transform Graphs of Functions	CC.9-12.F.BF.3	
		5.2	Transform Linear Functions	CC.9-12.F.BF.3	
		5.3	Compare Linear Functions	CC.9-12.F.IF.9	
		5.4	Inverses of Linear Functions	CC.9-12.A.CED.2	
		Unit 3- Build Linear Functions and Models			
Days 21-28	Days 41-56	Module 6- Fit Linear Functions to Data			
		6.1	Scatter Plots, Correlation, and Fitted Lines	CC.9-12.S.ID.6c	
		6.2	Residuals and Best-Fit Lines	CC.9-12.S.ID.7a	
		Module 7 – Discrete Linear Functions			
		7.1	Arithmetic Sequences Defined Recursively	CC.9-12.F.BF.2	
		7.2	Arithmetic Sequences Defined Explicitly	CC.9-12.F.BF.2	
		Module 8 – Piecewise-Defined Functions			
		8.1	Graph Piecewise-Defined Functions	CC.9-12.F.IF.7b	
		8.2	Graph Absolute Value Functions	CC.9-12.F.BF.3	
		8.3	Solve Absolute Value Equations and Inequalities	CC.9-12.A.CED.1	
Unit 2 (Curriculum): Modeling with Linear Functions, Linear Systems, and Exponential Functions					
Unit 4 – Linear Systems					
Days 29-35	Days 57-70	Module 9 – Systems of Linear Equations			
		9.1	Solve Linear Systems by Graphing	CC.9-12.A.REI.6	
		9.2	Solve Linear Systems by Substitution	CC.9-12.A.REI.6	
		9.3	Solve Linear Systems by Adding and Subtracting	CC.9-12.A.REI.6	
		9.4	Solve Linear Systems by Multiplying First	CC.9-12.A.REI.6	
		Module 10 – Linear Inequalities			
		10.1	Linear Inequalities in Two Variables	CC.9-12.A.REI.12	
		10.2	Graph Systems of Linear Inequalities	CC.9-12.A.REI.12	
		Unit 5 – Exponential Functions and Equations			
		Days 36-41	Days 71-82	Module 11 – Exponential Functions and Models	
11.1	Exponential Growth Functions			CC.9-12.A.CED.2	
11.2	Exponential Decay Functions			CC.9-12.A.CED.2	
11.3	Rewrite Exponential Models				

		Module 12 – Relationships Among Exponential Functions	
		12.1	Transform Exponential Functions CC.9-12.F.BF.3
		12.2	Compare Exponential Functions CC.9-12.F.IF.9
Unit 6 – Build Exponential Functions and Models			
Days 42-46	Days 83-92	Module 13 – Fit Exponential Functions to Data	
		13.1	Scatter Plots and Fitted Exponential Curves CC.9-12.S.ID.6c
		13.2	Choose Between Linear and Exponential Models CC.9-12.S.ID.6c
		Module 14 – Discrete Exponential Functions	
		14.1	Geometric Sequences Defined Recursively CC.9-12.F.BF.2
		14.2	Geometric Sequences Defined Explicitly CC.9-12.A.SSE.4
Unit 3 (Curriculum): Quadratic Equations, Functions, and Polynomials			
Unit 7 – Polynomial Operations and Models			
Days 47-52	Days 93-104	Module 15 – Polynomial Multiplication	
		15.1	Multiply Monomials CC.9-12.A.APR.1
		15.2	Multiply Monomials, Binomials, and Trinomials CC.9-12.A.APR.1
		15.3	Special Products of Binomials CC.9-12.A.APR.1
		Module 16 – Polynomial Addition and Subtraction	
		16.1	Add and Subtract Polynomials CC.9-12.A.APR.1
		16.2	Model with Polynomials CC.9-12.F.IF.4
Unit 8 – Quadratic Functions and Equations			
Days 53-61	Days 105-122	Module 17 – Use Graphing and Factoring to Solve Quadratic Equations	
		17.1	Solve Quadratic Equations by Graphing Quadratic Functions CC.9-12.F.IF.7a
		17.2	Solve Quadratic Equations by Factoring $x^2 + bx + c$ CC.9-12.A.SSE.3a
		17.3	Solve Quadratic Equations by Factoring $ax^2 + bx + c$ CC.9-12.A.SSE.3a
		17.4	Use Special Factoring Patterns to Solve Quadratic Equations CC.9-12.A.SSE.2
		Module 18 – Use Square Roots to Solve Quadratic Equations	
		18.1	Solve Simple Quadratic Equations CC.9-12.A.REI.4b
		18.2	Solve Quadratic Equations by Completing the Square CC.9-12.A.REI.4b
		18.3	Use the Quadratic Formula to Solve Equations CC.9-12.A.REI.4b
		18.4	Choose a Method for Solving Quadratic Equations CC.9-12.A.REI.4b
Unit 9 – Functions and Models			
Days 62-72	Days 123-144	Module 19 – Build Quadratic Functions and Models	
		19.1	Quadratic Functions in Vertex Form CC.9-12.F.IF.7a
		19.2	Quadratic Functions in Standard Form CC.9-12.F.IF.7a
		19.3	Quadratic Functions in Intercept Form CC.9-12.F.IF.7a
		19.4	Compare Quadratic Functions CC.9-12.F.IF.9
		19.5	Scatter Plots and Fitted Quadratic Curves CC.9-12.S.ID.6c
		Module 20 – Function Analysis	
		20.1	Choose Among Linear, Exponential, and Quadratic Models CC.9-12.A.CED.2
		20.2	Perform Operations with Functions CC.9-12.F.BF.1
		20.3	Solve Nonlinear Systems CC.9-12.A.REI.11
20.4	Cubic Functions CC.9-12.F.IF.7c		
Unit 4 (Curriculum): Modeling with Statistics			
Unit 10 – Data Analysis			
Days 73-77	Days 145-154	Module 21 – Categorical Data	
		21.1	Two-Way Frequency and Relative Frequency Tables CC.9-12.S.ID.5
		21.2	Recognize Possible Associations Between Categorical Variables CC.9-12.S.ID.5
		Module 22 – Numerical Data	
		22.1	Data Distributions and Appropriate Statistics CC.9012.S.ID.2
		22.2	Compare Data Distributions CC.9012.S.ID.2