Algebra 1
2023 Pacing Guide

Unit	Topic	2023 SOL	Pacing
1st Nine Weeks			
Expressions, Equations, and Functions	• Variables and Expressions • Translate Verbal Expressions • Order of Operations Evaluating Expressions • Square Roots & Cube Roots • Real Numbers and the Number Line • Properties of Real Numbers • Like Terms &Distributive Property • Patterns, Equations, and Graphs	A.EO.1 A.EO.4	1.5 weeks
Solving Linear Equations	• Single Step Equations • Multi-Step Equations • Solving Equations with Variables on Both Sides • Solving Equations and Literal Formulas • Solving Proportions	A.EI.1	1.5 weeks
Solving Inequalities	• Graphing Inequalities on a Number Line • Single-Step Inequalities • Multi-Step Inequalities	A.EI.1	1.5 weeks
Linear Functions	• Rate of Change and Slope • Slope Intercept Form • Point-Slope Form • Standard Form • Parallel and Perpendicular Lines	A.F.1	2 weeks
Systems of Equations & Inequalities	• Systems of Equations with Substitution • Systems of Equations with Elimination • Systems of Equations with Graphing • Linear Inequalities • Systems with Linear Inequalities	A.EI.2 A.EI.1	1.5 weeks
Functions	• Patterns and Linear Functions • Formalizing Relations and Functions • Transformation of Linear Parent Functions	A.F.1 A.F.2	1 weeks

2nd Nine Weeks			
Exponents and Exponential Functions	• Zero and Negative Exponents • Scientific Notation • Multiplying Powers With the Same Base • More Multiplication Properties of Exponents • Divisions Properties of Exponents • Key Features of Exponential Functions	A.EO.3 A.F.2	1 weeks
Polynomials and Factoring	• Adding and Subtracting Polynomials • Multiplying and Factoring • Multiplying Binomials • Multiplying Specials Cases • Dividing Polynomials • All Factoring	A.EO.2	2 weeks
Quadratic Functions and Equations	• Quadratic Graphs and Their Properties • Quadratic Functions • Solving Quadratic Equations • Factoring to Solve Quadratic Equations	A.EI.3 A.F.2	1 weeks
Radical Expressions & Equations	• Simplifying Radicals • Simplifying Cube Roots • Add, Subtract, and Multiply Monomial Radicals	A.EO.4	1 weeks
Statistics	• Scatterplots • Line of Best Fit • Curve of Best Fit • Solve Statistical Practical Problems	A.ST.1	2 weeks
		SOL Review	2 weeks

Deletions from Algebra 1 (2016 SOL)	Additions to Algebra 1 (2023 SOL)
• A.3a - Express the principal square root of a monomial algebraic expression in simplest form [Included in A2.EO.2] • A.8 – Analyze a relation to determine if a direct or inverse variation exists and represent a direct variation algebraically and graphically and an inverse variation algebraically [Direct variation included in 7.PFA.1; Direct and inverse variation included in A2.F.1d]	• A.EO.4 - Add, subtract, and multiply radicals includes numeric cube root expressions; generate equivalent numerical expressions for radicals using rational exponents, limited to rational exponents of $\frac{1}{2}$ and $\frac{1}{3}$ • A.EI.2 – Create a system of two linear inequalities in two variables to represent a contextual situation • A.EI.3 – Determine and justify if a quadratic equation has no real solutions, one real solution, or two real solutions • A.F.1 – Analyze and interpret information revealed by slope-intercept, standard, and point-slope forms of a linear function; compare and contrast characteristics of linear functions • A.F.2 - Identify the vertex (maximum and minimum) of a quadratic function; investigate, analyze, and compare functions, including quadratic and exponential functions; graph quadratic and exponential functions using transformations • A.ST.1 - Formulate and investigate questions about bivariate data using a data cycle; determine what variables could be used to explain a contextual problem or answer investigative questions; determine an appropriate method to collect a sample, including a simple random sample; describe strengths and weaknesses of a linear or quadratic model

KEY: EO = Expressions and Operations; EI = Equations and Inequalities; F = Functions; ST = Statistics; EKS = Essential Knowledge and Skills (2016); KS = Knowledge and Skills (2023); US = Understanding the Standard