Algebra 1 (1200310) & Algebra 1 Honors (1200320)
Scope and Sequence

In Algebra 1, instructional time will emphasize five areas:

1. performing operations with polynomials and radicals, and extending the Laws of Exponents to include rational exponents;
2. extending understanding of functions to linear, quadratic and exponential functions and using them to model and analyze real-world relationships;
3. solving quadratic equations in one variable and systems of linear equations and inequalities in two variables;
4. building functions, identifying their key features and representing them in various ways; and
5. representing and interpreting categorical and numerical data with one and two variables

	Unit	Benchmark	Instructional Guides	Assessment
1	**1** **Solving Equations and Inequalities** *(approx. 17 days)*	MA.912.AR.1.2 - Literal Equations MA.912.AR.2.1 - Write & Solve Multi -Step Linear Equations MA.912.AR.2.6 - Write/Solve One Variable Inequalities MA.912.AR.4.1 - Write/Solve One Variable Abs. Value Equations HONORS: MA.912.AR.4.2- Absolute Value Inequalities	Solving Linear Equations (6 days) Literal Equations and Formulas (2 days) Solving Inequalities (4 days) Absolute Value Equations (3 days) **HONORS:** Absolute Value Equations and Inequalities	Unit 1 Blueprint Unit 1 Test
	2 **Linear Equations** *(approx. 12 days)*	MA.912.AR.1.1 - Parts of an Equation MA.912.AR.2.2 - Write a Two Variable Equation MA.912.AR.2.3 - Parallel & Perpendicular Equations MA.912.AR.2.4 - Graph & Interpret Linear Equations Supporting benchmarks: MA.912.AR.1.2	Forms of Linear Equations (6 days) Parallel and Perpendicular Lines (3 days)	Unit 2 Blueprint Unit 2 Test
	3 **Linear and Absolute Value Functions** *(approx. 19 days)*	MA.912.AR.2.5 - Real World Linear Functions MA.912.AR.4.3 - Graph & Interpret Absolute Value Functions MA.912.F.1.2 - Evaluate and interpret functions MA.912.F.1.5 - Compare Key Features of Linear Functions MA.912.F.1.6 - Compare functions MA.912.F.2.1 - Transformations of Functions MA.912.FL.3.2 - Real-World Interest MA.912.FL.3.4 - Relationship Between Interest & Functions Supporting benchmarks : MA.912.AR.2.4, MA.912.AR.1.1	Domain and Range of Functions (2 days) Linear Functions (6 days) Absolute Value Functions (5 days)	Unit 3 Blueprint Unit 3 Test
2	**4** **Systems of Equations and Inequalities** *(approx. 15 days)*	MA.912.AR.2.7 - Write linear inequalities MA.912.AR.2.8 - Graph linear inequalities MA.912.AR.9.1 - Solve linear system of equations MA.912.AR.9.4 - Graph system of linear inequalities MA.912.AR.9.6 - Constraints as systems	Solving Systems of Equations Algebraically (9 days) Linear Inequalities & Systems of Linear Inequalities (4 days)	Unit 4 Blueprint Unit 4 Test
	5 **Exponents and Exponential Functions** **&** **Working with Functions** *(approx. 12 days)*	MA.912.AR.5.3 - Exponential Growth or Decay MA.912.AR.5.4 - Write Exponential Functions MA.912.AR.5.6 - Graphs of Exponential Functions MA.912.NSO.1.1 - Equivalent Expressions w/ Rational Exponents	Laws of Exponents (2 days) Rational Exponents and Properties of Exponents (4 days) Radical Expressions (3 days) Exponential Functions	Unit 5 Blueprint Unit 5 Test

Unit	Benchmarks	Topics	Assessment
	MA.912.NSO.1.2 - Properties of Exponents	(4 days)	
	MA.912.NSO.1.4 - Operations with Radicals		
	Supporting benchmarks: MA.912.AR.1.1 , MA.912.F.1., MA.912.F.1.8		
6 Polynomials and Factoring (approx. 18 days)	MA.912.AR.1.3 - Add, Subtract, Multiply polynomials MA.912.AR.1.4 - Divide polynomials MA.912.AR.1.7 - Factor polynomials	Adding and Subtracting Polynomials (2 days) Multiplying Polynomials (4 days) Factoring Polynomials (10 days)	Unit 6 Blueprint Unit 6 Test
7 & 8 Quadratic Functions & Solving Quadratic Equations (approx. 22 days)	MA.912.AR.3.1 - Write & Solve One Variable Quadratics MA.912.AR.3.4 - Write a Quadratic Function MA.912.AR.3.5 - Write a Quadratic Function from Zeros & Point MA.912.AR.3.6 - Determine & Interpret Vertex/Zeros of a Quadratic MA.912.AR.3.7 - Graph Quadratics & Key Features MA.912.AR.3.8 - Solve real world quadratic functions MA.912.F.1.1 - Classify Functions - Mathematical MA.912.F.1.2 - Evaluate and interpret functions MA.912.F.1.3 - Average Rate of Change MA.912.F.1.6 - Compare functions MA.912.F.1.8 - Classify Functions Real-world MA.912.F.2.1 - Transformations of Functions Supporting Benchmarks: MA.912.AR.1.1, MA.912.AR.1.2	Key Features of a Quadratic Function (2 days) Quadratic Functions in Vertex & Standard Form (5 days) Modeling with Quadratic Functions (3 days) Linear, Exponential, and Quadratic Models (2 days) Solving Quadratic Equations Using Graphs and Tables (2 days) Solving Quadratic Equations Algebraically (8 days) The Quadratic Formula and the Discriminant (3 days)	Unit 7 & 8 Blueprint Unit 7 & 8 Test
10 Representing Data & Analyzing Data (approx. 13 days)	MA.912.DP.1.1 - Numerical/Categorical & Univariate/Bivariate MA.912.DP.1.2 - Interpret Data Displays MA.912.DP.1.3 - Correlation and Causation MA.912.DP.1.4 - Estimate Population (Sample & Margin of Error) MA.912.DP.2.4 - Line of Fit MA.912.DP.2.6 - Residuals MA.912.DP.3.1 - Frequency Tables HONORS: MA.912.DP.2.5, MA.912.DP.3.2, MA.912.DP.3.3	Representing Numerical Data (2 days) Representing Categorical Data (2 days) Representing Bivariate Data (2 days) Analyzing Lines of Fit (2 days) Analyzing Two-Way Frequency Tables (2 days)	Unit 10 Blueprint Unit 10 Test
9 Working with Functions (approx. 10 days)	MA.912.F.1.1 - Classify Functions - Mathematical MA.912.F.1.2 - Evaluate and interpret functions MA.912.F.1.3 - Average Rate of Change MA.912.F.1.6 - Compare functions MA.912.F.1.8 - Classify Functions Real-world MA.912.F.2.1 - Transformations of Functions	Square Root, Cubic, and Cube Root Functions (2 days) Analyzing Functions (2 days)	Unit 9 Blueprint Unit 9 Test

		HONORS: MA.912.F.2.3, MA.912.F.3.1		
		EOC Review & Resources		

* Days are estimated and may be adjusted based on the release of the 2023-2024 state assessment calendar.