

Please Note:

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course are best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Publisher Resource:

McGraw Hill – [Cinch Learning](#) (use student Active Directory)

Other Course Supplemental Resources:

[Math Nation](#) (use student Active Directory)

[Algebra 1](#) (Khan Academy)

[IXL Math – High School Standards](#)

FSA Practice: (Please Note: these links work best in Firefox or Chrome)

[Algebra 1 FSA EOC Mathematics Computer-Based PRACTICE TEST](#)

[Algebra 1 FSA Computer-Based Practice Test Answer Key](#)

[Mathematics Practice Tests – PARCC \(Partnership for Assessment of Readiness for College and Careers\)](#)

[Mathematics Answer Keys – PARCC](#)

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 1 Aug 10 – Oct 13	1 8/10 - 8/11	Unit 1 – Working with Expressions <ul style="list-style-type: none"> Translating verbal phrases Properties of Real Numbers (Associative, Commutative, Identity, Distributive Property, Closure Property) 	Translating and Writing Expressions Properties of Real Numbers Closure Property
	2 8/14 – 8/18	<ul style="list-style-type: none"> Polynomial Operations: Combining Like Terms with integral coefficients , Justify Steps, Include fractional coefficients and Distributive Property Recognize expressions as monomial, polynomials , terms and coefficients and important attributes Interpret expressions and parts of an expression that represent a quantity in terms of its context Complete an informal argument on closure when simplifying polynomials. Unit 1 Assessment	Combining Like Terms Parts of an Expression
	3 8/21 – 8/25	Unit 2 – Solving Equations (with rational coefficients and constants) <ul style="list-style-type: none"> Review one and two step equations Construct a viable argument to justify a solution Solving Multi-step Equations up to 4 steps, Zero Product Property Solving Variables on both sides Explain the steps in solving a simple equation (Algebraic Proofs) Writing and Solving Absolute Value Equations Ratios and Proportions 	Solving Equations with Variables on Both Sides Solving Equations with Variables on Both Sides Using Distributive Property Algebraic Proofs Solving Absolute Value Equations Solving Proportions
	4 8/28 – 9/1	<ul style="list-style-type: none"> Literal Equations up to 4 steps Real World Equations (Age, distance, rate, perimeter) Unit 2 – Assessment Unit 3- Solving Inequalities <ul style="list-style-type: none"> Translate verbal phrases into an Inequality Solving Inequalities with variable son both sides up to 4 steps Compound Inequalities 	Literal Equations Distance Rate Time Problem Solving Multistep Inequalities Compound Inequalities
	5 9/5 – 9/8	<ul style="list-style-type: none"> Writing and Solving Absolute Value Inequalities Model Constraints using a combination of linear equations and inequalities in Real Life Situations Interpret solutions as viable or non-viable based on the context of the problem Unit 3 – Assessment	Solving Absolute Value Inequalities

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Algebra 1 Honors

2017 – 2018

		Unit 4- Intro to Functions <ul style="list-style-type: none"> • Relations and Functions from graph, table, mapping diagram or ordered pairs • Understand functions in terms of domain and range in real world situations. 	Intro to Functions, Key Features of Functions, and Interpreting Graphs
6	9/11 – 9/15	<ul style="list-style-type: none"> • Interpreting Graphs of Functions • Evaluating Functions • Key Features of graphs (increasing, decreasing, intercepts, max, min, domain, range, positive, negative, symmetry, end behavior) Unit 4 Assessment	
		Unit 5 – Linear Functions <ul style="list-style-type: none"> • Rate of Change from coordinate table, points, graph or real world situations. • Interpreting and Comparing the Rate of Change or y-intercept 	Slope
7	9/18 – 9/22	<ul style="list-style-type: none"> • Graphing Linear Functions given Slope Intercept, Point Slope and Standard Writing Linear Functions from graph, table, ordered pairs, point and slope, 2 points • Writing and Graphing Linear Inequalities in slope intercept, standard, or point slope form. 	Slope-Intercept Form Point-Slope Form Standard Form Writing Linear Equations in All 3 Forms
		<ul style="list-style-type: none"> • Arithmetic Sequences (Explicit and Recursive) Unit 5 – Assessment	Arithmetic Sequences
8	9/25 – 9/29	Unit 6: System of Equations and Inequalities <ul style="list-style-type: none"> • Solving a System of Equations by Graphing, including no solution and infinite solutions. • Solving a System of Equations by Substitution 	Solving Systems of Equations by Graphing Solving Systems of Equations by Substitution
9	10/2 – 10/6	<ul style="list-style-type: none"> • Solving Systems by Elimination method • Proving Systems of Equations • Graphing and Solving System of Inequalities • Writing a solving a system using Real World Applications 	Solving Systems of Equations by Eliminations Solving Systems of Equations Word Problems Graphing Systems of Inequalities
		Unit 6 Assessment	
10	10/9 – 10/13	Unit 7: Radical and Rational Exponents <ul style="list-style-type: none"> • Properties of Integer Exponents • Converting Rational Exponents • Prove the properties of rational exponents using the properties of integer exponents. 	Properties of Exponents Rational Exponents

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 2 Oct 17 – Dec 21	1 10/17 – 10/20	<ul style="list-style-type: none"> Simplifying Radicals Operations with Radical and Rational Exponents Solving Radical and Rational Exponent Equations Informal Proof to show Rational and Irrational sum and product Unit 7: Assessment	Simplifying Square Roots Operations With Radicals Solving Radical Equations Solving Equations with Rational Exponents
	2 10/23 – 10/27	Unit 8 – Polynomials <ul style="list-style-type: none"> Qualities, naming and classifying Polynomials Add and subtract polynomials that are Multiplied by Monomials Multiply Polynomials Special Product Composition of Functions 	Introduction to Polynomials and Operations with Polynomials Composition of Functions
	3 10/30 – 11/3	<ul style="list-style-type: none"> Closure property with polynomials Unit 8 Assessment Unit 9 – Solving Polynomial Equations by Factoring Emphasis on Zero Product Property <ul style="list-style-type: none"> Factoring and Solving by factoring out the GCF Solving $x^2+bx+c = 0$ by Factoring 	Closure Property of Polynomials Zero Property Factoring Quadratics All Methods Solving Quadratics By Factoring
	4 11/6 – 11/9	<ul style="list-style-type: none"> Solving $ax^2+bx+c = 0$ by factoring Factoring and Solving difference of two perfect squares Factoring and Solving perfect square trinomials 	Solving Quadratics By Factoring a Is NOT Equal to Zero Solving Quadratics when the Quadratic is a Difference of Squares Solving Quadratics when the Quadratic is a Perfect Square Trinomial
	5 11/13 – 11/17	<ul style="list-style-type: none"> Factoring and Solving by Grouping Area and Volume Applications with polynomials Unit 9 – Assessment (midterm only test up to this place)	Solving Polynomial Equations by Grouping Quadratic Word Problems
	6 11/20 – 11/21	Unit 10 –Solving Quadratics <ul style="list-style-type: none"> Solve $x^2 + c = d$ by taking the square root Solving $x^2+bx+c = 0$ by Completing the Square 	Solving Quadrics by Taking the Square Root Solving Quadratics by Completing the Square
	7 11/27 – 12/1	<ul style="list-style-type: none"> Solving $ax^2+bx+c = 0$ by Completing the Square Solving $ax^2+bx+c = 0$ by The Quadratic Formula Determine number of solutions using all methods 	Solving Quadratics by Using the Quadratic Formula
	8 12/4 – 12/8	<ul style="list-style-type: none"> Deriving the Quadratic Formula Quadratic Applications 	Deriving the Quadratic Formula Quadratic Word Problem

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Algebra 1 Honors

2017 – 2018

		Unit 10 Assessment	
	9 12/11 – 12/15	Midterm Review	
	10 12/18 – 12/21	<ul style="list-style-type: none">• District Exams	

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

	Week	Major Concepts / Topics	Possible Resources
Quarter 3 Jan 8 – Mar 15	1 1/8 – 1/12	Unit 11- Graphing Quadratics <ul style="list-style-type: none"> • Key Features of Quadratics • Graph Quadratics in Standard Form, Vertex Form, and Intercept Form • Converting Standard Form into Vertex Form • Determine the domain and range of a quadratic 	Finding the Vertex, Axis of Symmetry, and Direction of Opening Quadratic Functions Written in 3 Different Forms Converting From Standard Form to Vertex Form Domain and Range of Quadratics
	2 1/16 – 1/19	<ul style="list-style-type: none"> • Systems of Quadratic Equations • Solving and Interpreting Real World Quadratic Applications by using the Key features Unit 11 Assessment	Systems of Quadratic Equations Quadratic Word Problems
	3 1/22 – 1/26	Unit 12 – Exponential Functions <ul style="list-style-type: none"> • Write or choose a simple exponential equation given a graph, description, or ordered pairs with at least one pair of consecutive values. • Graph Exponential Functions by a table, intercepts, and describe the end behavior (Identifying Parts) • Relate the domain & range of an exponential function described in context • Recognizing Growth & Decay Given a Table or Graph • Identify the percent rate of change (percent of growth/decay) in an exponential situation • Explain the properties of a in a growth and decay function $y = ab^x$ in a real world context 	Writing Exponential Equation Given a Table Exponential Functions Finding Domain and Range From Graphs of Exponential Functions
	4 1/30 – 2/2	<ul style="list-style-type: none"> • Interpreting Exponential Real World Applications • Transform exponential functions using the properties of exponents to write equivalent forms to reveal and explain properties • Geometric Sequences (Explicit and Recursive) • Compare Arithmetic and Geometric Sequences Unit 12 Assessment	Exponential Real World Applications Geometric Sequences
	5 2/5 – 2/9	Unit 13 – Transforming and Comparing Functions (Use and identify the key features to graph each function below) <ul style="list-style-type: none"> • Graph Square Root • Graph Cube Root • Graph Polynomials in factored form • Graph Absolute Value • Graph Piece-wise • Evaluate functions for a given input or output 	Transformations of Quadratics Transformations of Square Roots Transformations of Cube Roots Graphing Polynomial Functions in Factored Form Transformations of Absolute Value Piecewise Functions

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Algebra 1 Honors

2017 – 2018

	<p>6 2/12 – 2/16</p>	<ul style="list-style-type: none"> • Transformations of functions • Comparing Functions (linear, exponential, quadratic) that are represented in different ways. • Systems of non-linear equations (graphing, algebraic, successive approximations) • Find Average Rate of Change <p>Unit 13 – Assessment</p>	<p>Average Rate of Change</p>
	<p>7 2/20 – 2/23</p>	<p>Unit 14 – Data and Statistics</p> <ul style="list-style-type: none"> • Histograms • Box Plots • Measures of Center, Shape and Spread • Data and Outliers • Two-Way Tables 	<p>Histograms Box Plots IQR Standard Deviation Two-Way Tables and Two-Way Frequency Tables</p>
	<p>8 2/26 – 3/2</p>	<ul style="list-style-type: none"> • Normal Distributions (Empirical Rule) • Scatter Plots • Correlation • Residuals 	<p>Empirical Rule Scatter Plots Correlation Coefficients Residuals</p>
	<p>9 3/5 – 3/9</p>	<ul style="list-style-type: none"> • Line of Best Fit • Linear Regression • Quadratic and Exponential Regression <p>Unit 14 Assessment (can be used as quarter 4 grade)</p>	<p>Line of Best Fit Interpreting Trend Lines Comparing Models</p>
	<p>10 3/12 – 3/15</p>	<ul style="list-style-type: none"> • Course Standards Review 	

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Algebra 1 Honors

2017 – 2018

	Week	Major Concepts / Topics	Possible Resources
Quarter 4 Mar 19 – May 24	1 3/19 – 3/23	<ul style="list-style-type: none"> • Course Standards Review 	
	2 3/26 – 3/30	<ul style="list-style-type: none"> • SPRING BREAK – NO SCHOOL 	
	3 4/2 – 4/6	<ul style="list-style-type: none"> • Course Standards Review 	
	4 4/9 – 4/13	<ul style="list-style-type: none"> • Course Standards Review 	
	5 4/16 – 4/20	<ul style="list-style-type: none"> • Course Standards Review 	
	6 4/23 – 4/27	Possible Topics to Cover after EOC Simplify Expressions/Fractions with Square Roots Rationalize the Denominator	
	7 4/30 – 5/4	Converse Pythagorean Theorem Multiplying and Dividing Rational Expressions	
	8 5/7 – 5/11	Dividing Polynomials (Long Division and Synthetic Division) Complex Fractions	
	9 5/14 – 5/18	Adding and Subtracting Rational Expressions Solving Rational Equations	
	10 5/21 – 5/24		

All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.