

Please Note:

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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](#)

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	Week	Major Concepts / Topics	Possible Resources
Quarter 1 Aug 10 – Oct 13	1 8/10 - 8/11	Unit 1 – Working with Expressions - 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	- 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) - 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	- Literal Equations up to 4 steps - Real World Equations (Age, distance, rate, perimeter) Unit 2 – Assessment Unit 3- Solving Inequalities - 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	- 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

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Algebra 1 Honors

2017 – 2018

		Unit 4- Intro to Functions • 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	• 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 • 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	• 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
	8 9/25 – 9/29	• Arithmetic Sequences (Explicit and Recursive) Unit 5 – Assessment Unit 6: System of Equations and Inequalities • Solving a System of Equations by Graphing, including no solution and infinite solutions. • Solving a System of Equations by Substitution	Arithmetic Sequences Solving Systems of Equations by Graphing Solving Systems of Equations by Substitution
	9 10/2 – 10/6	• 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
	10 10/9 – 10/13	Unit 6 Assessment Unit 7: Radical and Rational Exponents • Properties of Integer Exponents • Converting Rational Exponents • Prove the properties of rational exponents using the properties of integer exponents.	Properties of Exponents Rational Exponents

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Quarter 2 Oct 17 – Dec 21	1 10/17 – 10/20	- 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 - 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	Closure property with polynomials Unit 8 Assessment Unit 9 – Solving Polynomial Equations by Factoring Emphasis on Zero Product Property	Closure Property of Polynomials Zero Property Factoring Quadratics All Methods Solving Quadratics By Factoring
	4 11/6 – 11/9	- 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	- 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 - 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	- 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	- Deriving the Quadratic Formula - Quadratic Applications	Deriving the Quadratic Formula Quadratic Word Problem

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2017 – 2018

		Unit 10 Assessment	
	9 12/11 – 12/15	Midterm Review	
	10 12/18 – 12/21	District Exams	

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Quarter 3 Jan 8 – Mar 15	1 1/8 – 1/12	Unit 11- Graphing Quadratics - 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	- 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 - 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	- 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) - 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

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Algebra 1 Honors

2017 – 2018

	6 2/12 – 2/16	- 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 Unit 13 – Assessment	Average Rate of Change
	7 2/20 – 2/23	Unit 14 – Data and Statistics - Histograms - Box Plots - Measures of Center, Shape and Spread - Data and Outliers - Two-Way Tables	Histograms Box Plots IQR Standard Deviation Two-Way Tables and Two-Way Frequency Tables
	8 2/26 – 3/2	- Normal Distributions (Empirical Rule) - Scatter Plots - Correlation - Residuals	Empirical Rule Scatter Plots Correlation Coefficients Residuals
	9 3/5 – 3/9	- Line of Best Fit - Linear Regression - Quadratic and Exponential Regression Unit 14 Assessment (can be used as quarter 4 grade)	Line of Best Fit Interpreting Trend Lines Comparing Models
	10 3/12 – 3/15	Course Standards Review	

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2017 – 2018

Quarter 4 Mar 19 – May 24	Week	Major Concepts / Topics	Possible Resources
	1 3/19 – 3/23	Course Standards Review	
	2 3/26 – 3/30	SPRING BREAK – NO SCHOOL	
	3 4/2 – 4/6	Course Standards Review	
	4 4/9 – 4/13	Course Standards Review	
	5 4/16 – 4/20	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		

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