## Please Note:

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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:**

HMH (Holt McDougal) (use student Active Directory)

## **Other Course Supplemental Resources:**

Math Nation (use student Active Directory)

Algebra 2 - Khan Academy

<u>IXL Math – High School Standards</u>

Standards Practice: (Although the Algebra 2 FSA EOC will not be administered, these links help students practice the rigor of the course standards and how they will be assessed.)

Algebra 2 FSA EOC Mathematics Computer-Based PRACTICE TEST

Algebra 2 FSA EOC Computer-Based Practice Test Answer Key

<u>Mathematics Practice Tests – PARCC (Partnership for Assessment of Readiness for College and Careers)</u>
<u>Mathematics Answer Keys – PARCC</u>

**Additional Practice of Course Standards** 

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	Week	Major Concepts / Topics	Possible Resources
	1 8/10 - 8/11	Syllabus, Class Intro, Books, Etc.	
	2 8/14 – 8/18	<ul> <li>Pre-Test</li> <li>Unit 1 – Linear Review (Including Arithmetic Sequences and Series)</li> <li>Supplemental Lesson Rate of Change/Slope &amp; Writing Linear Equations &amp; Graphing Linear Equations Review</li> </ul>	Rate of Change <u>Khan Academy</u> Linear Equations <u>Khan Academy</u>
	3 8/21 – 8/25	<ul> <li>Lesson 9.1 Introduction to Sequences (focus on Arithmetic)</li> <li>Lesson 9.2 Series and Summation notation (Focus on Arithmetic)</li> <li>Lesson 9.3 Arithmetic Sequences and Series</li> <li>Assessment</li> </ul>	Lesson 9.1 Khan Academy Lesson 9.2 Khan Academy Lesson 9.3 Khan Academy
Quarter 1 Aug 10 – Oct 13	4 8/28 – 9/1	<ul> <li>Lesson 1.2 Parent Functions</li> <li>Supplemental Lesson Absolute Value Parent Function (including Transformations)</li> <li>Supplemental Lesson Graphing Linear and Absolute Value Inequalities</li> <li>Lesson 6.3 Piece-wise Functions</li> <li>Assessment</li> </ul>	Lesson 1.2 <u>Virtual Nerd</u> <u>Khan Academy- Absolute Value</u> <u>Khan Academy- Graphing Non-linear Piecewise</u> <u>Functions</u>
	5 9/5 – 9/8	<ul> <li>Supplemental Lesson Solving Systems of Equations Graphically and Algebraically</li> <li>Supplemental Lesson Solving Systems of Inequalities</li> <li>Supplemental Lesson Solving Systems of Equations in Three Variables (Creating the system, NOT SOLVING)</li> </ul>	Solving Systems of Equations Graphically Khan Academy Solving Systems of Equations Algebraically Khan Academy Solving Systems of Equations in Three Variables Khan Academy
	6 9/11 – 9/15	<ul> <li>Review and Assessment of UNIT 1</li> <li>Unit 2 – Quadratic Functions</li> <li>Lesson 2.1 Transformations of Quadratic Functions</li> <li>Lesson 2.2 Properties of Quadratic Functions in Standard Form</li> <li>Lesson 2.3 Solving Quadratics by Graphing and Factoring</li> </ul>	Lesson 2.1 <u>Youtube</u> Lesson 2.2 <u>Khan Academy</u> Lesson 2.3 <u>Solving Quadratics by Graphing and</u> <u>Factoring</u>
	7 9/18 – 9/22	<ul> <li>Lesson 2.3 Solving Quadratics by Graphing and Factoring</li> <li>Assessment</li> <li>Lesson 2.4 Completing the Square</li> </ul>	Khan Academy -Solving Quadratics by Factoring Lesson 2.4 Completing the Square

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	Algebra 2	2017 – 2018
8 9/25 – 9/29	<ul> <li>Lesson 2.4 Completing the Square</li> <li>Lesson 2.5 Complex Numbers</li> <li>Lesson 2.6 The Quadratic Formula</li> <li>Lesson 2.7 Quadratic Inequalities</li> </ul>	Lesson 2.5 Khan Academy Lesson 2.6 Khan Academy Lesson 2.7 Quadratic Inequalities
9 10/2 – 10/6	<ul> <li>Lesson 2.7 Quadratic Inequalities</li> <li>Review</li> <li>Assessment</li> <li>Lesson 2.9 Operations on Complex Numbers</li> </ul>	Lesson 2.9 <u>Khan Academy</u>
10 10/9 – 10/13	<ul> <li>Lesson 2.9 Operations on Complex Numbers</li> <li>Lesson 12.7 Solving Non-Linear Systems</li> <li>Lesson 12.5 Parabolas (Focus and Directrix)</li> </ul>	Lesson 12.7 <u>Khan Academy</u> Lesson 12.5 <u>Khan Academy</u>

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	Week	Major Concepts / Topics	Possible Resources
	1 10/17 – 10/20	<ul> <li>Lesson 12.5 Parabolas (Focus and Directrix)</li> <li>Review</li> <li>Cumulative Assessment Unit 2 Quadratics</li> <li>Unit 3 – Polynomial Functions</li> <li>Lesson 3.1 Polynomials</li> </ul>	Lesson 3.1 Khan Academy
	2 10/23 – 10/27	<ul> <li>Lesson 3.2 Multiplying Polynomials</li> <li>Lesson 3.3 Dividing Polynomials</li> <li>Assessment</li> </ul>	Lesson 3.2 <u>Khan Academy</u> Lesson 3.3 <u>Khan Academy</u>
	3 10/30 – 11/3	<ul> <li>Lesson 3.4 Factoring Polynomials</li> <li>Assessment</li> <li>Lesson 3.5 Finding Real Roots of Polynomial Functions</li> </ul>	Lesson 3.4 <u>Khan Academy</u> Lesson 3.5 <u>Youtube</u>
Quarter 2 Oct 17 – Dec 21	4 11/6 – 11/9	<ul> <li>Lesson 3.5 Finding Real Roots of Polynomial Functions</li> <li>Lesson 3.7 Investigating Graphs of Polynomial Functions</li> </ul>	Lesson 3.7 Khan Academy
	5 11/13 – 11/17	<ul> <li>Review</li> <li>Assessment Unit 3</li> <li>Unit 4 – Rational Functions</li> <li>Lesson 5.2 Multiplying and Dividing Rational Functions</li> </ul>	Lesson 5.2 Multiplying and Dividing Rational Functions
	6 11/20 – 11/21	Lesson 5.3 Adding and Subtracting Rational Functions	Lesson 5.3 Khan Academy
	7 11/27 – 12/1	<ul> <li>Lesson 5.3 Adding and Subtracting Rational Functions</li> <li>Lesson 5.4 Rational Functions</li> </ul>	Lesson 5.4 <u>Khan Academy</u>
	8 12/4 – 12/8	<ul> <li>Lesson 5.5 Solving Rational Equations and Inequalities</li> <li>Review</li> <li>Assessment Unit 4</li> </ul>	Lesson 5.5 <u>Khan Academy</u>
	9 12/11 – 12/15	Review for Midterms	

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Algebra	2
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2017 - 2018

10	Midterm Exams
12/18 – 12/21	

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	Week	Major Concepts / Topics	Possible Resources
	1 1/8 – 1/12	<ul> <li>Unit 5 – Properties of Functions, Rational Exponents &amp; Radical Functions</li> <li>Lesson 6.5 Operations with Functions</li> <li>Lesson 6.4 Transforming Functions</li> <li>Lesson 6.6 Functions and Their Inverses</li> </ul>	Lesson 6.5 <u>Youtube</u> Lesson 6.4 <u>Youtube</u> Lesson 6.6 <u>Khan Academy</u>
	2 1/16 – 1/19	<ul> <li>Review</li> <li>Assessment</li> <li>Lesson 5.6 Radical Expressions and Rational Exponents</li> </ul>	Lesson 5.6 Radical Expressions and Radical Exponents
	3 1/22 – 1/26	<ul> <li>Lesson 5.6 Radical Expressions and Rational Exponents</li> <li>Assessment</li> <li>Lesson 5.7 Radical Functions (Graphing with Transformations)</li> </ul>	Lesson 5.7 <u>Khan Academy</u>
•	4 1/30 – 2/2	<ul> <li>Lesson 5.8 Solving Radical Equations</li> <li>Assessment Unit 5</li> </ul>	Lesson 5.8 Khan Academy
Quarter 3 Jan 8 – Mar 15	5 2/5 – 2/9	<ul> <li>Unit 6 – Exponential and Logarithmic Functions (Include Geometric Sequences and Series)</li> <li>Lesson 4.1 Exponential Functions, Growth and Decay</li> <li>Lesson 4.7 Transforming Exponential and Logarithmic Functions (Focus on Exponential functions)</li> <li>Lesson 9.4 Geometric Sequences and Series</li> </ul>	Lesson 4.1 Lesson 9.4 Khan Academy Lesson 4.7 Youtube
	6 2/12 – 2/16	<ul> <li>Lesson 9.4 Geometric Sequences and Series</li> <li>Assessment</li> <li>Lesson 4.2 Inverses of Relations and Functions</li> </ul>	Lesson 4.2 Khan Academy
	7 2/20 – 2/23	<ul> <li>Lesson 4.3 Logarithmic Functions</li> <li>Lesson 4.7 Transforming Exponential and Logarithmic Functions (Focus on Logarithmic Functions)</li> <li>Lesson 4.4 Properties of Logarithms</li> </ul>	Lesson 4.7 <u>Youtube</u> Lesson 4.3 <u>Khan Academy</u> Lesson 4.4 <u>Khan Academy</u>
	8 2/26 – 3/2	<ul> <li>Lesson 4.5 Exponential and Logarithmic Functions</li> <li>Lesson 4.6 The Natural Base E</li> </ul>	Lesson 4.5 <u>Khan Academy</u> <u>Lesson 4.6</u>

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9	<ul> <li>Review</li> <li>Assessment Unit 6</li> <li>Unit 7 - Probability</li> </ul>	Lesson 7.1 Khan Academy
3/5 – 3/9	<ul> <li>Lesson 7.1 Permutations and Combinations (include Fundamental Counting Principle)</li> <li>Supplemental Lesson Set Theory and Venn Diagrams</li> </ul>	
10 3/12 – 3/1	<ul> <li>Lesson 7.2 Theoretical and Experimental Probability</li> <li>Review</li> <li>Assessment</li> <li>Lesson 7.3 Independent and Dependent Events</li> </ul>	Lesson 7.2 <u>Khan Academy</u> Lesson 7.3 <u>Khan Academy</u>

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	Week	Major Concepts / Topics	Possible Resources
	1 3/19 – 3/23	<ul> <li>Lesson 7.5 Compound Events</li> <li>Lesson 7.4 Two-Way Tables</li> <li>Review</li> <li>Assessment Unit 7</li> </ul>	Lesson 7.4 <u>Khan Academy</u> Lesson 7.5 <u>Khan Academy</u>
	2 3/26 – 3/30	SPRING BREAK – NO SCHOOL	
	3 4/2 – 4/6	<ul> <li>Unit 8 Data Analysis and Statistics</li> <li>Lesson 8.2 Data Gathering</li> <li>Lesson 8.3 Surveys, Experiments, and Observational Studies</li> <li>Lesson 8.1 Measures of Central Tendency and Variation</li> <li>Supplemental lesson on Distributions of Data (Box and Whisker plot, Histograms, &amp; Skewed vs Symmetric Data)</li> </ul>	Lesson 8.1 <u>Khan Academy</u> Lesson 8.2 <u>Khan Academy</u> Lesson 8.3 <u>Youtube</u>
Quarter 4 Mar 19 – May 24	4 4/9 – 4/13	<ul> <li>Extension on Normal Distributions (p. 594)</li> <li>Lesson 8.7 Fitting to a Normal Distribution</li> <li>Review</li> <li>Assessment Unit 8</li> </ul>	Lesson 8.7 Khan Academy
Mar 19 May 21	5 4/16 – 4/20	<ul> <li>Unit 9 – Trigonometric Functions</li> <li>Lesson 10.1 Right-Angle Trigonometry</li> <li>Lesson 10.2 Angles of Rotation</li> </ul>	Lesson 10.1 <u>Khan Academy</u> Lesson 10.2 <u>Khan Academy</u>
	6 4/23 – 4/27	<ul><li>Lesson 10.3 The Unit Circle</li><li>Assessment</li></ul>	Lesson 10.3 Khan Academy
	7 4/30 – 5/4	<ul> <li>Lesson 11.1 Graphs of Sine and Cosine</li> <li>11.3 Fundamental Trigonometric Identities (Pythagorean Identities ONLY)</li> </ul>	Lesson 11.1 <u>Khan Academy</u> Lesson 11.3 <u>Khan Academy</u>
	8 5/7 – 5/11 9 5/14 – 5/18	<ul> <li>Review</li> <li>Assessment Unit 9</li> <li>Review for Final Exams</li> </ul>	
	10 5/21 – 5/24	Final Exams	

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