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Publisher Resource:

Math Nation

Other Course Supplemental Resources:

Khan Academy - Geometry

Khan Academy - Algebra 2

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	Week	Major Concepts / Topics	Possible Resources
Quarter 1 Aug 10 – Oct 9	1 8/10 – 8/14	**Unit 1: Linear Functions, Equations, & Inequalities** • Linear Equations and Inequalities in Two Variables • Arithmetic Sequences	Slope Khan Academy Slope-Intercept Form Khan Academy Standard Form Khan Academy Sequences Khan Academy Arithmetic Sequences Khan Academy
	2 8/17 – 8/21	• Parallel and Perpendicular Lines – Part 1 • Parallel and Perpendicular Lines – Part 2 • Quadrilaterals in Coordinate Geometry – Part 1	Point-Slope Form Khan Academy Parallel & Perpendicular Lines Khan Academy Graphing Linear Inequalities Khan Academy
	3 8/24 – 8/28	• Quadrilaterals in Coordinate Geometry – Part 2 • Review • Assessment	Linear Equations Khan Academy Writing Equations Given 2 Points Khan Academy
	4 8/31 – 9/4	**Unit 2: Piecewise-Defined Functions** • Introduction to Piecewise-Defined Functions – Part 1 • Introduction to Piecewise-Defined Functions – Part 2	Piecewise Functions Khan Academy
	5 9/7 – 9/11	• Labor Day Holiday – 9/7 • Absolute Value Functions • Review • Assessment	Absolute Value Functions Khan Academy
	6 9/14 – 9/18	**Unit 3: Quadratic Equations and Functions – Part 1** • Solving Quadratic Equations by Factoring • Solving Quadratic Equations by Factoring Special Cases – Part 1	Factoring Quadratics Khan Academy
	7 9/21 – 9/25	• Solving Quadratic Equations by Factoring Special Cases – Part 2 • Complex Numbers – Part 1	Complex Numbers Khan Academy Operations with Complex Numbers Khan Academy
	8 9/28 – 10/2	• Complex Numbers – Part 2 • Solving Quadratic Equations by Completing the Square	Completing the Square Khan Academy
	9 10/5 – 10/9	• Solving Quadratic Equations Using the Quadratic Formula – Part 1 • Solving Quadratic Equations Using the Quadratic Formula – Part 2	Quadratic Formula Khan Academy

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Liberal Arts Mathematics 2   2020-2021

	Week	Major Concepts / Topics	Possible Resources
Quarter 2 Oct 12 – Dec 18	1 10/12 – 10/16	• Teacher Planning – 10/12 • PSAT – 10/14 • Review • Assessment	
	2 10/19 – 10/23	**Unit 4: Quadratic Equations and Functions – Part 2** • Graphing Quadratic Functions in Standard Form • Graphing Quadratic Functions in Vertex Form – Part 1	Parabolas in Standard Form Khan Academy Transformations of Quadratics Youtube Parabolas in Vertex Form Khan Academy
	3 10/26 – 10/30	• Graphing Quadratic Functions in Vertex Form – Part 2 • Writing Quadratic Equations in Vertex Form from a Graph	
	4 11/2 – 11/6	• Converting Quadratic Equations • Writing Quadratic Equations When Given a Focus and Directix	Completing the Square Khan Academy Focus and Directrix Khan Academy
	5 11/9 – 11/13	• Veterans Day 11/11 • Circles in the Coordinate Plane: Standard Form • Circles in the Coordinate Plane: General Form	Circles Khan Academy
	6 11/16 – 11/20	• Systems of Equations with Quadratics – Part 1 • Systems of Equations with Quadratics – Part 2 • Systems of Equations with Other Quadratic Equations	Solving Non-Linear Systems Khan Academy
	7 11/23 – 11/24	• Review • Assessment • Thanksgiving Holiday 11/25 - 11/27	
	8 11/30 – 12/4	**Unit 5: Polynomial Functions** • Polynomial Identities – Part 1 • Polynomial Identities – Part 2 • Understanding Zeros of Polynomials • Factoring Polynomials	Long Division Khan Academy Synthetic Division Khan Academy Factoring Sum of Cubes Khan Academy Factoring Difference of Cubes Khan Academy
	9 12/7 – 12/11	• Sketching Graphs of Polynomials • Review • Assessment • Standards Review	Graphs of Polynomials Khan Academy
	10 12/14 – 12/18	• Standards Review • Midterm Exams	

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	Week	Major Concepts / Topics	Possible Resources
Quarter 3 Jan 5 – Mar 11	1 1/5– 1/8	**Unit 6: Functions** • Using Division to Rewrite Rational Expressions • Using Synthetic Division to Rewrite Rational Expressions • Assessment	Long Division Khan Academy Synthetic Division Khan Academy Graphing Rational Functions Khan Academy
	2 1/11 – 1/15	**Unit 7: Rational Expressions and Equations** • The Remainder Theorem • Graphing Rational Functions	
	3 1/18 – 1/22	• Martin Luther King Jr. Holiday 1/18 • Review • Assessment **Unit 8: Expressions and Equations with Radicals and Rational Exponents** • Expressions with Radicals and Rational Exponents – Part 1	Radical Expressions & Rational Exponents Khan Academy
	4 1/25 – 1/29	• Expressions with Radicals and Rational Exponents – Part 2 • Graphing Square Root and Cube Root Functions – Part 1 • Teacher Inservice 1/29	Radical Functions Khan Academy
	5 2/1 – 2/5	• Graphing Square Root and Cube Root Functions – Part 2 • Review • Assessment	Square Root Youtube Cube Root Youtube
	6 2/8 – 2/12	**Unit 9: Exponential & Logarithmic Functions** • Real-World Exponential Growth and Decay – Part 1 • Real-World Exponential Growth and Decay – Part 2 • Interpreting Exponential Equations	Exponential Growth/Decay Functions Khan Academy
	7 2/15 – 2/19	• Presidents Day Holiday 2/15 • Common and Natural Logarithms • Comparing Functions	Graphing Exponential Khan Academy Logarithmic Functions Khan Academy Properties of Logs Khan Academy Exponential/Log Equations Khan Academy Natural Base, e Khan Academy
	8 2/22 – 2/26	• Comparing Linear, Quadratic, and Exponential Functions – Part 1 • Comparing Linear, Quadratic, and Exponential Functions – Part 2	
	9 3/1 – 3/5	• Review • Assessment	

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	10 3/8 – 3/11	**Unit 10: Sequences and Series** • Geometric Sequences • Comparing Arithmetic and Geometric Sequences	

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Quarter 4 Mar 15 – May 25	1 3/15 – 3/19	• **SPRING BREAK – NO SCHOOL**	
	2 3/22 – 3/26	• Introduction to Geometric Series – Part 1 • Introduction to Geometric Series – Part 2 • Sum of Geometric Series	
	3 3/29 – 4/2	• Calculating Loan Payments • Review • Assessment • Holiday 4/2	
	4 4/5 – 4/9	**Unit 11: Probability** • Probability and the Addition Rule – Part 1 • Probability and the Addition Rule – Part 2	
	5 4/12 – 4/16	• Probability and Independence • Conditional Probability • Two-Way Frequency Tables – Part 1 • Two-Way Frequency Tables – Part 2	Independent/Dependent Events Khan Academy Conditional Probability Khan Academy Two-way Tables Khan Academy
	6 4/19 – 4/23	• Empirical and Theoretical Probability • Review • Assessment	
	7 4/26 – 4/30	**Unit 12: Statistics and Parameters** • Statistics and Parameters • Statistical Studies – Part 1 • Statistical Studies – Part 2 • The Normal Distribution – Part 1 and 2	Survey/Observational Study/Experiment Youtube Data Gathering Khan Academy
	8 5/3 – 5/7	• The Normal Distribution – Part 3 • Estimating Means and Proportions • Margin of Error When Estimating Population Means • Comparing Treatments – Part 1 and 2	Margin of Error Khan Academy

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		• Interpreting Data	
9 5/10 – 5/14		• Probability and Independence • Conditional Probability • Two-Way Frequency Tables – Part 1 • Two-Way Frequency Tables – Part 2	Independent/Dependent Events Khan Academy Conditional Probability Khan Academy Two-way Tables Khan Academy
10 5/17 – 5/21		• Standards Review • DISTRICT FINAL EXAMS	
11 5/24 – 5/25		• DISTRICT FINAL EXAMS	

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