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 timeline and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will 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:

Pearson (select your grade and course level and use your active directory)

Other Course Supplemental Resources:

Khan Academy (Algebra 1; program does not support Internet Explorer)

Math Nation (Clever – use your active directory; does not support Internet Explorer)

FSA Portal

Algebra 1 EOC Test Item Specifications
Algebra 1 FSA Computer-Based Practice Test Answer Key

PARCC (Partnership for Assessment of Readiness for College and Careers) - Mathematics Practice Tests with Answer Keys

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	Week	Major Concepts / Topics	Possible Resources
Quarter 1 Aug 16 – Oct 15	1 8/16 – 8/20	 1.1 Operations on real numbers 1.2 Solving linear equations 1.3 Solving equations with variables on both sides 1.4 Literal equations and formulas 	Unit: Irrational numbers - Khan Academy Rational vs. irrational expressions - Khan Academy Sum and product of 2 rational #'s is rational - Khan Academy Produce of rational and irrational is irrational - Khan Academy Sum of rational and irrational is irrational - Khan Academy Sums and products of irrational numbers - Khan Academy
			Unit: Linear equations and graphs - Khan Academy Variables, expressions and equations - Khan Academy Unit: Solving equations - Khan Academy Variables on Both Sides - Khan Academy Intro to equations with variables on both sides - Khan Academy Solving an equation for a variable - Khan Academy
	2 8/23 – 8/27	 1.5 Solving inequalities in one variable 1.6 Compound inequalities 1.7 Absolute value equations and inequalities Remediation Review 	Unit: Solving inequalities - Khan Academy Testing solutions to an inequality - Khan Academy Plotting an inequality - Khan Academy One step inequality - Khan Academy Two step inequality - Khan Academy Inequalities with variables on both sides - Khan Academy Compound inequalities: OR - Khan Academy Compound inequalities: AND - Khan Academy Unit: Absolute value and piecewise functions - Khan Academy Graphing absolute value functions - Khan Academy
	3	Assessment	Unit: Forms of linear equations - Khan Academy
	8/30 – 9/3 4 9/6 – 9/10	 2.1 Slope intercept form Labor Day Holiday – 9/6 2.2 Point slope form 2.3 Standard form 	Point slope form - <u>Khan Academy</u> Standard form - <u>Khan Academy</u>
	5 9/13 – 9/17	 Interims Issued – 9/14 Remediation Review Assessment 3.1 Relations and Functions 	Unit: functions - <u>Khan Academy</u> Relations and functions - <u>Khan Academy</u> What is a function - <u>Khan Academy</u>
	6 9/20 – 9/24	 3.2 Linear Functions 3.3 Transforming linear functions 3.4 Arithmetic sequences 3.5 Scatter plots and lines of best fit 	Recognizing linear functions - <u>Khan Academy</u> Linear transformations - <u>Khan Academy</u> Unit: Sequences - <u>Khan Academy</u> Intro to arithmetic sequences - <u>Khan Academy</u> Unit: Data and modeling - <u>Khan Academy</u>

			Scatter Plots and Lines of Fit - Khan Academy
	7 9/27 – 10/1	3.6 Analyzing lines of fitRemediationReview	
	8 10/4 – 10/8	 Assessment 4.1 Solving systems by graphing 4.2 Solving systems by substitution 	Unit: Systems of equations - Khan Academy Solving systems with graphing - Khan Academy Solving Systems by Substitution - Khan Academy
	9 10/11 – 10/15	 4.3 Solving systems by elimination PSAT/NMSQT – 10/13 4.4 Linear inequalities 	Solving Systems by Elimination – Khan Academy Inequalities with variables on both sides - Khan Academy

	Week	Major Concepts / Topics	Possible Resources
Quarter 2 Oct 19 – Dec 21	1	4.5 Systems of linear inequalities	
	2 10/25 – 10/29	 Remediation Report Cards – 10/26 Review Assessment 6.1 Rational exponents and properties of exponents 	Systems of inequalities - Khan Academy Unit: Exponents and radicals - Khan Academy Exponent properties: products - Khan Academy Exponent properties: parentheses - Khan Academy Exponent properties: quotients - Khan Academy Negative exponents - Khan Academy Multiplying and dividing powers. Khan Academy
	,	6.2 Exponential functions	Multiplying and dividing powers - Khan Academy Powers of products and quotients - Khan Academy Powers of zero - Khan Academy Intro to exponential functions - Khan Academy
	3 11/1 – 11/5	 6.3 Exponential growth and decay 6.4 Geometric sequences 	Unit: Exponential growth and decay - Khan Academy Graphing exponential growth and decay - Khan Academy Unit: Sequences - Khan Academy Intro to geometric sequences - Khan Academy
	4 11/8 – 11/12	 6.5 Transformations of exponential functions Veterans Day 11/11 Remediation 	Transformations of exponential functions - Khan Academy
	5 11/15 – 11/19	 Interims Issued – 11/16 Review Assessment 7.1 Adding and subtracting polynomials 7.2 Multiplying polynomials 	Unit: Quadratics: Multiplying and factoring - <u>Khan Academy</u> Adding polynomials – <u>Khan Academy</u> Intro to multiplying polynomials – <u>Khan Academy</u>
	6 11/22 – 11/26	 7.3 Multiplying special cases Thanksgiving Holiday 11/24 – 11/26 	Special products (x+a)(x-a) – <u>Khan Academy</u> Squaring binomials - <u>Khan Academy</u>
	7 11/29 – 12/3	 7.4 Factoring polynomials 7.5 Factoring x² + bx + c 7.6 Factoring ax² + bx + c 	Intro to factoring – <u>Khan Academy</u>
	8 12/6 – 12/10	7.7 Factoring special casesRemediationReview	Difference of squares - <u>Khan Academy</u> Perfect squares - <u>Khan Academy</u> Special product forms - <u>Khan Academy</u>
	9 12/13 – 12/17	AssessmentMidterms	
	10 12/20 – 12/24	 Second Quarter/First Semester Ends – 12/21 Winter Break – 12/22 – 1/4 	

	Week	Major Concepts / Topics	Possible Resources
Quarter 3 Jan 6 – Mar 10	1 1/6 – 1/7	 8.1 Key features of quadratic functions 8.2 Quadratic functions in vertex form 	Unit: Quadratic functions and equations - Khan Academy Parabolas intro - Khan Academy Forms and features of quadratics - Khan Academy Intro to vertex form - Khan Academy
	2 1/10 – 1/14	 8.3 Quadratic functions in standard form 8.4 Modeling with quadratic functions 	Graphing quadratics: standard form - Khan Academy
	3 1/17 – 1/21	 Martin Luther King Jr. Holiday – 1/17 Report Cards – 1/19 8.5 Linear exponential and quadratic models Remediation 	
	4 1/24 – 1/28	 Review Assessment 9.1 Solving quadratic equations 9.2 Solving quadratic equations by factoring 	Solving quadratics by factoring - Khan Academy
	5 1/31 – 2/4	 9.3 Rewriting radical expressions 9.4 Solving quadratic equations using square roots 9.5 Completing the square 9.6 The quadratic formula and the discriminant 	Intro to rational exponents - Khan Academy Rewriting roots as rational exponents - Khan Academy Solving quadratics by taking square roots - Khan Academy Completing the square - Khan Academy Quadratic formula - Khan Academy Discriminant (practice) - Khan Academy
	6 2/7 – 2/11	 Teacher Inservice – 2/7 Interims Issued – 2/8 9.7 Solving Systems of Linear and Quadratic Equations Remediation Review Assessment 	
	7 2/14 – 2/18	 5.1 Absolute value function 5.2 Piece-wise functions 5.3 Step functions 5.4 Transformations of piece-wise functions 	Unit: Absolute value and piecewise functions - Khan Academy Graphing absolute value - Khan Academy Intro to piece-wise functions - Khan Academy Domain and range of step functions - Khan Academy Shifting absolute value graphs - Khan Academy

	Presidents Day Holiday – 2/21	
8	Remediation/Review	Graphing square root and cube root functions - Khan Academy
2/21 – 2/	• Assessment	
2/21-2/	• 10.1 Square root function	
	10.2 Cube root function	
	10.3 Analyzing functions graphically	Identifying function transformations - Khan Academy
9 2/20 2	• 10.4 Translations of functions	Reflecting and compressing functions - Khan Academy
2/28 – 3	• 10.5 Compressions and stretches of functions	Identifying horizontal squash - Khan Academy
	10.6 Operations of functions	
10	• 10.7 Inverse Operations	
3/7 – 3/	Remediation/Review	
	Assessment	

	Week	Major Concepts / Topics	Possible Resources
Quarter 4 Mar 14 – June 2	1 3/14 – 3/18	SPRING BREAK – NO SCHOOL	
	2 3/21 – 3/25	 11.1 Analyzing data displays 11.2 Comparing data sets 11.3 Interpreting the sets of data displays 	
	3 3/28 – 4/1	 Report Cards – 3/29 11.4 Standard deviation 11.5 Two-way frequency tables 	Two way frequency tables (8th grade standards) - Khan Academy Two-way frequency tables (practice) - Khan Academy
	4 4/4 – 4/8	11.6 Data Distributions11.7 Normal DistributionsRemediation	
	5 4/11 – 4/15	 Review Assessment 12.1 Polynomial Identities 12.2 Dividing Polynomials Holiday – 4/15 	Polynomial Identities - <u>Khan Academy</u> Dividing polynomials - <u>Khan Academy</u>
	6 4/18 – 4/22	 Holiday – 4/18 12.3 Inverse Variation and the Reciprocal Functions 12.4 Graphing Rational Functions 12.5 Multiplying and Dividing Rational Expressions 	Inverse variation - Khan Academy Graphing rational functions - Khan Academy Multiplying and dividing rational expressions - Khan Academy
	7 4/25 – 4/29	 Interims Issued – 4/26 12.6 Adding and Subtracting Rational Expressions 12.7 Solving Rational Equations 12.8 Solving Radical Equations 	Adding and subtracting rational expressions - <u>Khan Academy</u> Intro to rational equations - <u>Khan Academy</u> Intro to square root equations - <u>Khan Academy</u>
	8 5/2 – 5/6 <mark>5/2 – 5/27 - FSA/EOC Testing</mark> Window	 Remediation Review Assessment Course Standards Review 	
	9	Course Standards Review	

	5/9 – 5/13		
	10 5/16 – 5/20	Course Standards Review	
	11 5/23 – 5/27	Course Standards Review	
	12 5/30 – 6/2	Memorial Day Holiday – 5/30Course Standards Review	