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:

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

Other Course Supplemental Resources:

<u>Khan Academy</u> (8th Grade – Pre-Algebra; does not support Internet Explorer)

<u>Illustrative Mathematics</u> (8th Grade; does not support Internet Explorer)

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

FSA Portal

<u>Grade 8 Mathematics Test Item Specifications</u> <u>Grade 8 FSA Mathematics Computer-Based Practice Test Answer Key</u>

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
	1 8/12 – 8/16	 1-1 Rational Numbers as Decimals (8.NS.1.1) 1-2 Understand Rational Numbers (8.NS.1.1) 	Introduction to Rational and Irrational Numbers - Khan Academy
	2 8/19 – 8/23	 1-3 Compare and Order Real Numbers (8.NS.1.2) 1-4 Evaluate Square Roots and Cube Roots (8.EE.1.2) 1-5 Solve Equations Using Square Roots and Cube Roots (8.EE.1.2) 1-5 Solve Equations Using Square Roots and Cube Roots (8.EE.1.2) 	Compare Real Numbers - Khan Academy Approximating Square Roots - Khan Academy Solving Cube Roots - Khan Academy
	3 8/26 – 8/30	 1-6 Use Properties of Integer Exponents (8.EE.1.2) 1-7 More Properties of Integer Exponents (8.EE.1.1) 	Properties of Exponents - Khan Academy
	4 9/3 – 9/6	 Labor Day (9/2) 1-8 Use Powers of 10 to Estimate Quantities (8.EE.1.3) 1-9 Understand Scientific Notation (8.EE.1.4) 	Approximating with Powers of 10 - Khan Academy Scientific Notation - Khan Academy
Quarter 1 Aug 12 – Oct 11	5 9/9 – 9/13	 3-Act Mathematical Modeling: Hard-Working Organs (8.EE.1.1, 8.EE.1.3) 1-10 Operations with Numbers in Scientific Notation (8.EE.1.4) 	Adding and Subtracting in Scientific Notation - Khan Academy Multiplication and Division in Scientific Notation - Khan Academy Scientific Notation Review - Khan Academy
	6 9/16 – 9/20	 Review and assess 3-1 Combine Like Terms to Solve Equations (8.EE.3.7b) 	Introduction to combining Like Terms - Khan Academy Same Thing to Both Sides of the Equation - Khan Academy
	7 9/23 – 9/27	 3-1 Combine Like Terms to Solve Equations (8.EE.3.7b) 3-2 Solve Equations with Variables on Both Sides (8.EE.3.7b) 	Equation Word Problem – Super Yoga - Khan Academy Distributive Property with Variables - Khan Academy Solve Equations on Both Sides Practice - Khan Academy
	8 9/30 – 10/4	 3-3 Solve Multistep Equations (8.EE.3.7b) 3-4 Equations with No Solutions or Infinitely Many Solutions (8.EE.3.7a) 	Solve Equations with Parentheses - Khan Academy Solve Equations with Parentheses, Decimals, and Fractions - Khan Academy Create Equations with no Solutions or Infinitely Many Solutions - Khan Academy

9 10/7 – 10/11	3-5 Compare Proportional Relationships (8.EE.2.5)	Rate and Proportional Relationships - Khan Academy Graphing Proportional Relationships - Khan Academy
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	Week	Major Concepts / Topics	Possible Resources
	1 10/15 – 10/18	 3-7 Analyze Linear Equations: y = mx (8.EE.2.6) 3-8 Understand the y-intercept of a line (8.EE.2.6) 	Solutions to Linear Equations - Khan Academy Introduction to Slope-Intercept Form - Khan Academy
	2 10/21 – 10/25	• 3-9 Analyze Linear Equations: y = mx + b (8.EE.2.6)	Graphing Slope-Intercept Form - Khan Academy Slope-Intercept Form Review - Khan Academy
	3 10/28 – 11/1	Review and assess	
Quarter 2	4 11/4 – 11/8	 4-1 Understand Relations and Functions (8.F.1.1) 4-2 Connect Representations of Functions (8.F.1.1) 	Relations and Functions - <u>Khan Academy</u> Evaluate Functions - <u>Khan Academy</u> Evaluate Functions from their Graphs - <u>Khan Academy</u> Function Rules from Equations - <u>Khan Academy</u>
Oct 15 – Dec 20	5 11/12 – 11/15	 Veterans Day (11/11) 4-3 Compare Linear and Nonlinear Functions (8.F.1.3, 8.F.1.2) 3-Act Mathematical Modeling: Every Drop Counts (8.F.2.4, 8.F.1.2) 4-4 Construct Functions to Model Linear Relationships (8.F.2.4, 8.F.1.2) 	Linear and Nonlinear Functions - Khan Academy Modeling with Linear Equations - Khan Academy Practice Linear Equations - Khan Academy
	6 11/18 – 11/22	 4-5 Intervals of Increase and Decrease (8.F.2.5) 4-6 Sketch Functions from Verbal Descriptions (8.F.2.5) 	Increase/Decrease Intervals - Khan Academy Recognizing Functions from Verbal Descriptions - Khan Academy
	7 11/25 – 11/26	ReviewThanksgiving Holiday (11/27 - 11/29)	
	8 12/2 – 12/6	 Review and assess 5-1 Construct and Interpret Scatter Plots (8.SP.1.1) 5-2 Analyze Linear Associations (8.SP.1.2, 8.F.1.3, 8.F.2.4) 	Constructing Scatter Plots - Khan Academy Construct/Interpret Scatter Plots - Khan Academy

		Analyze Positive and Negative Linear Associations from Scatter Plots - Khan Academy
9 12/9 – 12/1	 5-3 Use Linear Models to Make Predications (8.SP.1.3, 8.F.1.3, 8.F.2.4) 5-4 Interpret Two-Way Frequency Tables (8.SP.1.4) 	Estimating Equations of Lines of Best Fit, Using them to make Predictions - Khan Academy Interpreting Two-Way Tables - Khan Academy
10 12/16 – 12/2	 5-5 Interpret Two-Way Relative Frequency Tables (8.SP.1.4) Review and assess 	Interpreting Two-Way Tables Practice - <u>Khan Academy</u>

Quarter 3 Jan 6 – Mar 12	Week	Major Concepts / Topics	Possible Resources
	1 1/6-1/10	 3-Act Mathematical Modeling: Reach Out (8.SP.1.1, 8.SP.1.2, 8.SP.1.3) 7-1 Analyze Translations (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3) 7-2 Analyze Reflections (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3) 	Analyzing Translations - Khan Academy Analyzing Reflections - Khan Academy-Analyzing Reflections
	2 1/13 – 1/17	 7-3 Analyze Rotations (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3) 7-4 Compose Transformations (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3) 	Analyze Rotations - <u>Khan Academy</u> Transformations Practice - <u>Khan</u> <u>Academy</u>
	3 1/21 – 1/24	 3-Act Mathematical Modeling: Tricks of the Trade (8.G.1.1, 8.G.1.2) 7-5 Understand Congruent Figures (8.G.1.2, 8.G.1.3) 7-6 Describe Dilations (8.G.1.3, 8.G.1.4) 	Understand Congruent Figures - Khan Academy Dilations and Properties - Khan Academy
	4 1/27 – 1/30	 7-7 Understand Similar Figures (8.G.1.3, 8.G.1.4) 7-8 Angles, Lines, and Transversals (8.G.1.5) 	Constructing Triangles - Khan Academy Introduction to Angle Relationships - Khan Academy Similar Shapes and Transformations - Khan Academy Angles, Lines, and Transversals - Khan Academy
	5 2/3 – 2/7	 7-9 Interior and Exterior Angles of Triangles (8.G.1.5) 7-10 Angle-Angle Triangle Similarity (8.G.1.5) 	Find Angles In Triangles - Khan Academy Triangle Similarity Postulates - Khan Academy
	6 2/10 – 2/14	 3-Act Mathematical Modeling: Go with the Flow (8.G.2.6) Review and assess 	

	7 2/17 – 2/21	 8-1 Understand Pythagorean Theorem (8.G.2.6, 8.G.2.7) 8-2 Understand the Converse of the Pythagorean Theorem (8.G.2.6, 8.G.2.7) 	Introduction to Pythagorean Theorem - Khan Academy
	8 2/24 – 2/28	 8-3 Apply the Pythagorean Theorem to Solve Problems (8.G.2.7) 8-4 Find Distance in the Coordinate Plane (8.G.2.8) 	Apply Pythagorean Theorem - Khan Academy Find Distance in Coordinate Planes - Khan Academy
	9 3/2 – 3/6	Review and assess	
	10 3/9 – 3/12	 10-2 Find Volume of Cylinders (8.G.3.9) 10-3 Find Volume of Cones (8.G.3.9) 	Find Volume of Cylinders, Cones, and Spheres - Khan Academy Solve Word Problems for Volumes of Cylinders, Cones, and Spheres -Khan Academy

	Week	Major Concepts / Topics	Possible Resources
	1 3/16 – 3/20	SPRING BREAK – NO SCHOOL	
	2 3/23 – 3/27	 10-4 Find Volume of Spheres (8.G.3.9) 3-Act Mathematical Modeling: Measure Up (8.G.3.9) 	
	3 3/30 – 4/3	Review and assess	
	4 4/6 – 4/9	 6-1 Estimate Solutions by Inspection (8.EE.3.8b, 8.EE.3.8c) 6-2 Solve Systems by Graphing (8.EE.3.8a, 8.EE.3.8c) Holiday 4/10 	Solutions of Systems of Equations - Khan Academy Solving Systems of Equations by Graphing - Khan Academy
Quarter 4 Mar 23 – May 27	5 4/14 – 4/17	 Holiday 4/13 6-3 Solve Systems by Substitution (8.EE.3.8b, 8.EE.3.8c) 6-4 Solve Systems by Elimination (8.EE.3.8b, 8.EE.3.8c) 	Solve Systems of Equations by Substitution - <u>Khan Academy</u> Solve Systems of Equations by Elimination - <u>Khan Academy</u>
	6 4/20 – 4/24	 3-Act Mathematical Modeling: Ups and Downs (8.EE.3.8, 8.SP.1.3, 8.F.2.4) Review and asses 	
	7 4/27 – 5/1	Standards Review	Review lessons and videos from topics 12-1 – 12-7
	8 5/4 – 5/8	Standards Review	
	9 5/11 – 5/15	Standards Review	
	10 5/18 – 5/22	Standards Review	
	11 5/25 – 5/27	Standards Review	