#### 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:**

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

### **Other Course Supplemental Resources:**

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

Illustrative Mathematics (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> Grade 8 FSA Mathematics 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
	1 8/31 – 9/4	<ul> <li>1-1 Rational Numbers as Decimals (8.NS.1.1)</li> <li>1-2 Understand Rational Numbers (8.NS.1.1)</li> </ul>	Converting a fraction to a repeating decimal - <u>Khan Academy</u> Converting repeating decimals to fractions - <u>Khan Academy</u>
	2 9/7 – 9/11	<ul> <li>Labor Day Holiday – 9/7</li> <li>1-3 Compare and Order Real Numbers (8.NS.1.2)</li> <li>1-4 Evaluate Square Roots and Cube Roots (8.EE.1.2)</li> </ul>	Comparing rational numbers - <u>Khan Academy</u> Ordering rational numbers practice - <u>Khan Academy</u>
	3 9/14 – 9/18	<ul> <li>1-5 Solve Equations Using Square Roots and Cube Roots (8.EE.1.2)</li> <li>1-6 Use Properties of Integer Exponents (8.EE.1.2)</li> </ul>	Intro to square roots - <u>Khan Academy</u> Intro to cube roots - <u>Khan Academy</u> Exponent properties: products - <u>Khan Academy</u> Exponent properties: parentheses - <u>Khan Academy</u> Exponent properties: quotients - <u>Khan Academy</u>
			Negative exponents - <u>Khan Academy</u> Multiplying and dividing powers - <u>Khan Academy</u> Powers of products and quotients - <u>Khan Academy</u> Powers of zero - <u>Khan Academy</u>
Quarter 1 Aug 31 - Oct 30	4 9/21 – 9/25	<ul> <li>1-7 More Properties of Integer Exponents (8.EE.1.1)</li> <li>1-8 Use Powers of 10 to Estimate Quantities (8.EE.1.3)</li> </ul>	Multiplying multiples of powers of 10 - <u>Khan Academy</u> Approximating with powers of 10 - <u>Khan Academy</u>
	5 9/28 – 10/2	<ul> <li>1-9 Understand Scientific Notation (8.EE.1.4)</li> <li>1-10 Operations with Numbers in Scientific Notation (8.EE.1.4)</li> </ul>	Scientific notation - <u>Khan Academy</u> Scientific notation part 2 - <u>Khan Academy</u>
	6 10/5 – 10/9	<ul> <li>Remediate</li> <li>Review</li> <li>Assess</li> <li>3-1 Combine Like Terms to Solve Equations (8.EE.3.7b)</li> </ul>	Intro to equations with variables on both sides - <u>Khan</u> Academy
	7 10/12 – 10/16	<ul> <li>3-2 Solve Equations with Variables on Both Sides (8.EE.3.7b)</li> <li>3-3 Solve Multistep Equations (8.EE.3.7b)</li> </ul>	Equations with variables on both sides - <u>Khan Academy</u> Equations with variables on both sides: fractions - <u>Khan</u> <u>Academy</u> Equations with parentheses - <u>Khan Academy</u>
	8 10/19 – 10/23	<ul> <li>3-4 Equations with No Solutions or Infinitely Many Solutions (8.EE.3.7a)</li> <li>3-5 Compare Proportional Relationships (8.EE.2.5)</li> </ul>	Number of solutions to equations - <u>Khan Academy</u> Creating an equation with no solutions - <u>Khan Academy</u> Creating an equation with infinitely many solutions - <u>Khan</u> <u>Academy</u>

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9	3-6 Connect Proportional Relationships and Slope	Intro to slope - <u>Khan Academy</u>
10/26 – 10/30	(8.EE.2.6)	Graphing proportional relationships - Khan Academy
	<ul> <li>3-7 Analyze Linear Equations: y = mx (8.EE.2.6)</li> </ul>	

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	Week	Major Concepts / Topics	Possible Resources
	1	• Teacher Planning Day 11/3	
	11/2 – 11/6	• PSAT 10/14	
		• 3-8 Understand the y-intercept of a line (8.EE.2.6)	Intro to slope-intercept form - Khan Academy
	2	Veterans Day 11/11	Graph from slope-intercept form - Khan Academy
	11/9 – 11/13	• 3-9 Analyze Linear Equations: y = mx + b (8.EE.2.6)	Slope-intercept equation from graph - Khan Academy
		Remediate	Writing equation from slope and point - Khan Academy
	3	Review	
	11/16 - 11/20	Assess	Relations and Functions - Khan Academy
		4-1 Understand Relations and Functions (8.F.1.1)	
	4	• 4-2 Connect Representations of Functions (8.F.1.1)	
	11/23 – 11/27	Thanksgiving Holiday 11/25 - 11/27	What is a function - <u>Khan Academy</u>
	5	• 4-3 Compare Linear and Nonlinear Functions (8.F.1.3,	Evaluate functions -Khan Academy
	11/30 – 12/4	8.F.1.2)	Evaluate functions from their Graphs (practice) -Khan
Outerstein 2		• 4-4 Construct Functions to Model Linear Relationships	Academy
Quarter 2		(8.F.2.4, 8.F.1.2)	Function rules from equations (practice) - <u>Khan Academy</u>
NOV 2 - Jan 25"			Linear and nonlinear functions - Khan Academy
			Modeling with linear equations - <u>Khan Academy</u>
	6	<ul> <li>4-5 Intervals of Increase and Decrease (8.F.2.5)</li> </ul>	Increase/decrease intervals - Khan Academy
	12/7 – 12/11	• 4-6 Sketch Functions from Verbal Descriptions (8.F.2.5)	Recognizing functions from verbal descriptions - <u>Khan</u>
			Academy
	7	<ul> <li>Winter Break 12/21 – 1/1</li> </ul>	
	12/14 – 12/18	Remediate	
		Review	
		Assess	
	8	• 5-1 Construct and Interpret Scatter Plots (8.SP.1.1)	Constructing scatter plots - Khan Academy
	1/4 - 1/8	• 5-2 Analyze Linear Associations (8.SP.1.2, 8.F.1.3,	Example of direction in scatterplots - Khan Academy
		8.F.2.4)	Analyze positive and negative linear associations from
			Scatter plots - (practice) <u>knah Academy</u>
	9	• 5-3 Use Linear Models to Make Predications (8.SP.1.3,	Estimating line of best fit - <u>Knan Academy</u>
	1/11 - 1/15	$\delta$ .r.1.3, $\delta$ .r.2.4)	Interpreting a trend line - <u>knan Academy</u>
		<ul> <li>5-4 Interpret Two-Way Frequency Tables (8.SP.1.4)</li> </ul>	Interpreting Iwo-Way Tables - <u>Khan Academy</u>

10	•	Martin Luther King Jr. Holiday 1/18	
1/18 – 1/22*	•	Semester 1 Standards Review	
	•	*Second Quarter/First Semester Ends – Monday,	
		January 25, 2021	

	Week	Major Concepts / Topics	Possible Resources
	1 1/25* – 1/29	<ul> <li>Teacher Planning Day 1/29</li> <li>5-5 Interpret Two-Way Relative Frequency Tables (8.SP.1.4</li> <li>Remediate</li> <li>Review</li> </ul>	Interpreting Two-Way Tables - <u>Khan Academy</u>
	2 2/1 - 2/5	<ul> <li>Assess</li> <li>7-1 Analyze Translations (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3)</li> <li>7-2 Analyze Reflections (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3)</li> </ul>	Analyzing translations - <u>Khan Academy</u> Translating shapes - <u>Khan Academy</u> Reflecting points - <u>Khan Academy</u>
	3 2/8 – 2/12	<ul> <li>7-3 Analyze Rotations (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3)</li> <li>7-4 Compose Transformations (8.G.1.1a, 8.G.1.1b, 8.G.1.1c, 8.G.1.3)</li> </ul>	Determining rotations - <u>Khan Academy</u> Rotating points - <u>Khan Academy</u> Determining reflections - <u>Khan Academy</u> Determining translations - <u>Khan Academy</u>
Question 2	4 2/15 – 2/19	<ul> <li>Presidents Day Holiday 2/15</li> <li>7-5 Understand Congruent Figures (8.G.1.2, 8.G.1.3)</li> <li>7-6 Describe Dilations (8.G.1.3, 8.G.1.4)</li> </ul>	Understand Congruent Figures - <u>Khan Academy</u> Dilations: scale factor - <u>Khan Academy</u>
Quarter 3 Jan 26 – Apr 8	5 2/22 – 2/26	<ul> <li>7-7 Understand Similar Figures (8.G.1.3, 8.G.1.4)</li> <li>7-8 Angles, Lines, and Transversals (8.G.1.5)</li> </ul>	Similar shapes and transformation - <u>Khan Academy</u> Side lengths after dilation - <u>Khan Academy</u> Angles, parallel lines, and transversals - <u>Khan Academy</u>
	6 3/1 - 3/5	<ul> <li>7-9 Interior and Exterior Angles of Triangles (8.G.1.5)</li> <li>7-10 Angle-Angle Triangle Similarity (8.G.1.5)</li> </ul>	Angles in a triangle - <u>Khan Academy</u> Triangle exterior angles - <u>Khan Academy</u> Intro to triangle similarity - <u>Khan Academy</u>
	7 3/8 – 3/12	<ul> <li>Remediate</li> <li>Review</li> <li>Assess</li> </ul>	
	8 3/15 – 3/19	• Spring Break 3/17 – 3/19	
	9 3/22 – 3/26	<ul> <li>8-1 Understand Pythagorean Theorem (8.G.2.6, 8.G.2.7)</li> <li>8-2 Understand the Converse of the Pythagorean Theorem (8.G.2.6, 8.G.2.7)</li> </ul>	Intro to the Pythagorean theorem - <u>Khan Academy</u>
	10 3/29 – 4/2	<ul> <li>Holiday 4/2</li> <li>8-3 Apply the Pythagorean Theorem to Solve Problems (8.G.2.7)</li> </ul>	Pythagorean theorem with isosceles triangle - <u>Khan</u> <u>Academy</u> Pythagorean theorem to find area - <u>Khan Academy</u>

	• 8-4 Find Distance in the Coordinate Plane (8.G.2.8)	Finding distance with the Pythagorean theorem - Khan
		Academy
11	• Teacher Planning Day 4/9	
4/5 – 4/9	Remediate	
	Review	
	Assess	

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	1	• 10-1 Find Surface Area of Three-Dimensional	Surface area word problem - Khan Academy
	4/12 - 4/16	Figures (8.G.3.9)	Cylinder volume and surface area - Khan Academy
		• 10-2 Find Volume of Cylinders (8.G.3.9)	
		• 10-3 Find Volume of Cones (8.G.3.9)	
	2	• 10-3 Find Volume of Cones (8.G.3.9)	Volume of a cone - <u>Khan Academy</u>
	4/19 - 4/23	• 10-4 Find Volume of Spheres (8.G.3.9)	Volume of a sphere - <u>Khan Academy</u>
	3	Remediate	
	4/26 – 4/30	Review	
		Assess	
	4	• 6-1 Estimate Solutions by Inspection (8.EE.3.8b,	Systems of equations part 1 - Khan Academy
	5/3 – 5/7	8.EE.3.8c)	Systems of equations part 2 - <u>Khan Academy</u>
	May 3 - FSA	• 6-2 Solve Systems by Graphing (8.EE.3.8a,	Testing a solution to a system - <u>Khan Academy</u>
Quarter 4	Testing	8.EE.3.8c)	Systems of equations with graphing - <u>Khan Academy</u>
Apr 12 – Jun 10	Window		
	Opens		
		• 6-3 Solve Systems by Substitution (8.EE.3.8b,	Systems of equations with substitution - <u>Khan Academy</u>
	5/10-5/14	8.EE.3.8C)	System of equations with elimination part 2 Khan Academy
		• 0-4 Solve Systems by Emmination (6.EE.S.6b,	Number of solutions to a system - Khan Academy
	6	Bemediate	Number of solutions to a system - <u>Man Academy</u>
	5/17 - 5/21	Beview	
	5,1, 5,21	Assess	
	7	Standards Review	
	5/24 – 5/28		
	8	Memorial Day Holiday 5/31	
	5/31 – 6/4	Standards Review	
	9	Standards Review	
	6/7 - 6/10		