

**Twin Rivers USD**  
**Grade Eight Common Core Math Pacing**  
**2017-2018**

**Trimester 2**

<b>Pretest Test:            November 2</b>
<ul style="list-style-type: none"> <li>• <b>Trimester 2 Pretest Exam</b>                Use the information as an additional pacing tool to guide instruction.</li> </ul>

**Unit 5: Rational vs. Irrational**

<b>Instructional Window (11 days): Nov. 3 – Nov. 29</b>				
<b>Standard(s)</b>				
<b>8.NS.1:</b> Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.				
<b>8.NS.2:</b> Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g. $\pi^2$ , ). <i>For example, by truncating the decimal expansion of <math>\sqrt{2}</math>, show that <math>\sqrt{2}</math> is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.</i>				
<b>Go Math Lessons</b>				
1.1, 1.2, 1.3				
Go Math Lesson	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus	TE pg. #
1.1, 1.2	<b>Lesson 1</b> Rational vs. Irrational Numbers	8.NS.1	C	2
1.1, 1.2	<b>Lesson 2</b> Rational vs. Irrational Numbers	8.NS.1	P	12
N/A	<b>Lesson 3</b> Decimal Expansion	8.NS.1	C	24
N/A	<b>Lesson 4</b> Decimal Representation	8.NS.1	MT	34
N/A	<b>Lesson 5</b> Repeating Decimals to Fractions	8.NS.1	C	38
N/A	<b>Lesson 6</b> Repeating Decimals to Fractions	8.NS.1	P	48

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1.3	<b>Lesson 7</b> Estimate Irrational Numbers	8.NS.2	C	60
1.3	<b>Lesson 8</b> Estimate Irrational Numbers ( <i>s</i> )	8.NS.2	P	70
1.3	<b>Lesson 9</b> Compare & Order Irrational Numbers	8.NS.2	P	82
N/A	<b>Lesson 10</b> Classify Numbers ( <i>s</i> )	8.NS.1, 2	MT	92
<b>Suggested Unit 5 Assessment Date – November 30 &amp; December 1</b>				

## Unit 6: Proportional Relationships, Lines & Linear Equations

<b>Instructional Window (11 days): Dec. 4 – Dec. 18</b>				
<b>Standard(s)</b>				
<b>8.EE.5:</b> Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. <i>For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.</i>				
<b>8.EE.6:</b> Use similar triangles to explain why the slope is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y=mx$ for a line through the origin and the equation $y=mx+b$ for a line intercepting the vertical axis at $b$ .				
<b>Go Math Lessons</b>				
3.3, 4.2				
Go Math Lesson	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus	TE pg. #
N/A	<b>Lesson 1</b> Compare Proportional Relationships ( <i>m</i> )	8.EE.5	C	98
N/A	<b>Lesson 2</b> Compare Proportional Relationships ( <i>m</i> )	8.EE.5	P	110
3.3	<b>Lesson 3</b> Unit Rate as Slope ( <i>m</i> )	8.EE.5	C	122
3.3	<b>Lesson 4</b> Unit Rate as Slope ( <i>m</i> )	8.EE.5	P	132
3.1	<b>Lesson 5</b> Linear Equations: $y = mx$ ( <i>m</i> )	8.EE.6	C	146
3.1	<b>Lesson 6</b> Linear Equations: $y = mx$ ( <i>m</i> )	8.EE.6	P	156

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N/A	<b>Lesson 7</b> Similar Triangles with Slope ( <i>m</i> )	8.EE.6	C	168
N/A	<b>Lesson 8</b> Similar Triangles with Slope ( <i>m</i> )	8.EE.6	P	178
4.2	<b>Lesson 9</b> Slope Intercept Form ( <i>m</i> )	8.EE.6	C	190
4.2	<b>Lesson 10</b> Slope Intercept Form ( <i>m</i> )	8.EE.6	P	200
N/A	<b>Lesson 11</b> Linear Equations ( <i>m</i> )	8.EE.5	MT	212

**Suggested Unit 6 Assessment Date – December 19 & 20**

## Unit 7: Functions

<b>Instructional Window (14 days):</b> <b>Jan. 8 – Jan. 29</b>
<b>Standard(s)</b>
<b>8.F.1:</b> Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
<b>8.F.2:</b> Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). <i>For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.</i>
<b>8.F.3:</b> Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. <i>For example, the function <math>A = s^2</math> giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4), and (3,9), which are not on a straight line.</i>
<b>8.F.4:</b> Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two ( $x, y$ ) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
<b>8.F.5:</b> Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or non-linear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.
<b>Go Math Lessons</b>
3.2, 6.1, 6.2, 6.3, 6.4

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Go Math Lesson	Lesson Topic * = optional lesson (c) = combine lessons	Standard	Lesson Focus	TE pg. #
6.1	<b>Lesson 1</b> Introduction to Functions	8.F.1	C	218
6.1	<b>Lesson 2</b> Represent Functions ( <i>m</i> )	8.F.1	C	228
6.1	<b>Lesson 3</b> Represent Functions ( <i>m</i> )	8.F.1	P	240
6.2	<b>Lesson 4</b> Linear Functions ( <i>m</i> )	8.F.2	C	254
N/A	<b>Lesson 5</b> Nonlinear Functions ( <i>m</i> )	8.F.2	C	264
6.3	<b>Lesson 6</b> Compare Functions: Linear & Nonlinear ( <i>m</i> )	8.F.2	P	276
6.4	<b>Lesson 7</b> Interpret Linear Functions: $y = mx + b$	8.F.3	C	288
6.4	<b>Lesson 8</b> Interpret Linear Functions: $y = mx + b$ ( <i>m</i> )	8.F.3	P	298
3.2	<b>Lesson 9</b> Initial Value & Rate of Change	8.F.4	C	310
3.2	<b>Lesson 10</b> Initial Value & Rate of Change	8.F.4	P	322
6.4	<b>Lesson 11</b> Functional Relationships ( <i>m</i> )	8.F.5	P	340
N/A	<b>Lesson 12</b> Functions ( <i>m</i> )	8.F.5	MT	354
<b>Suggested Unit 7 Assessment Date – January 30 &amp; 31</b>				

## Unit 8: Systems of Equations

<b>Instructional Window (13 days):</b> Feb. 1 – Feb. 21
<b>Standard(s)</b>
<p><b>8.EE.8:</b> Analyze and solve pairs of simultaneous linear equations.</p> <ol style="list-style-type: none"> <li>Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.</li> <li>Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. <i>For example, <math>3x + 2y = 5</math> and <math>3x + 2y = 6</math> have no solution because <math>3x + 2y</math> cannot simultaneously be 5 and 6.</i></li> <li>Solve real-world and mathematical problems leading to two linear equations in two variables. <i>For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.</i></li> </ol>

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**Go Math Lessons**

8.1, 8.2, 8.3, 8.4

	<b>Lesson Topic</b> * = optional lesson (c) = combine lessons	<b>Standard</b>	<b>Lesson Focus</b>	<b>TE pg. #</b>
N/A	<b>Lesson 1</b> Systems of Linear Equations with Two Variables ( <i>m</i> )	8.EE.8	C	362
8.1	<b>Lesson 2</b> Graph Linear Equations ( <i>m</i> )	8.EE.8a	C	372
8.1	<b>Lesson 3</b> Graph Linear Equations ( <i>m</i> )	8.EE.8a	P	384
8.2	<b>Lesson 4</b> Substitution ( <i>m</i> )	8.EE.8b	C	400
8.2	<b>Lesson 5</b> Substitution ( <i>m</i> )	8.EE.8b	P	410
8.3	<b>Lesson 6</b> Elimination ( <i>m</i> )	8.EE.8b	C	424
8.3	<b>Lesson 7</b> Elimination: Add & Subtract ( <i>m</i> )	8.EE.8b	P	434
8.4	<b>Lesson 8</b> Elimination: Multiply ( <i>m</i> )	8.EE.8b	P	448
N/A	<b>Lesson 9</b> Word Problems: Systems of Equations ( <i>m</i> )	8.EE.8c	P	460
N/A	<b>Lesson 10</b> System of Linear Equations ( <i>m</i> )	8.EE.8	MT	472
<b><i>Suggested</i> OPTIONAL Unit 8 Assessment Date – February 22 &amp; 23</b>				

**End of Trimester 2 Assessments**

***Suggested Review Day* for Trimester 2 Benchmark Date – February 26**  
***Suggested* Trimester 2 Cumulative Benchmark Date – February 27 & 28**  
**Performance Task – March 1 & 2**

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