

8th Grade Math Curriculum Bundle # 11

Title	Suggested Dates
Direct and Inverse Relationships	April 19 – May 7 (15 days)



Big Idea/Enduring Understanding	Guiding Questions
Being able to solve a problem using different strategies is essential to mathematical understanding.	<ol style="list-style-type: none"> 1. How are mathematical ideas communicated? 2. Explain strategies used to determine the solution to given situations.
In order to generate different representations we need to be able to read, interpret and analyze different representations of data.	<ol style="list-style-type: none"> 1. How do you evaluate the effectiveness of different representations to communicate ideas? 2. What type of representation is best for different situations?

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See Note Above)	
<p>8.15 Underlying processes and mathematical tools. The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models.</p> <p>8.15A communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models</p> <p><i>Note: Emphasize throughout bundles.</i></p>	<ul style="list-style-type: none"> • identify the appropriate situation for application of a mathematical concept • ability to explain the process and find the solution to any given problem 	<p><u>CMP2 Thinking with Math Models</u> Pearson Investigation 2,3</p>	<p><u>Region XIII 8th Sense</u> Objective 6 8.15A (repeated from bundle 10)</p>
<p>8.15 Underlying processes and mathematical tools. The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models.</p> <p>8.15B evaluate the effectiveness of different representations to communicate ideas</p> <p><i>Note: Emphasize throughout bundles.</i></p>	<ul style="list-style-type: none"> • students generate multiple methods of problem solving and determine the most effective method 		

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<p>8.14 Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</p> <p>8.14A identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics</p> <p><i>Note: Emphasize throughout bundles.</i></p>	<ul style="list-style-type: none"> • integrate mathematical concepts with a variety of real world situations • multi-step problems 		<p><u>Region XIII 8th Sense</u> Objective 6 8.14A</p>
<p>8.4 Patterns, relationships, and algebraic thinking. The student makes connections among various representations of a numerical relationship.</p> <p>8.4 The student is expected to generate a different representation of data given another representation of data (such as a table, graph, equation, or verbal description).</p>	<ul style="list-style-type: none"> • using multiple representations of data within a single context of a problem including the 4 corners model 		<p><u>Region XIII 8th Sense</u> Objective 2 8.4A</p>
<p>8.5 Patterns, relationships, and algebraic thinking. The student uses graphs, tables, and algebraic representations to make predictions and solve problems.</p> <p>8.5A predict, find, and justify solutions to application problems using appropriate tables, graphs, and algebraic equations</p>	<ul style="list-style-type: none"> • make predictions using data in a table or graph • real-world situations in which both an equation and the dependent variable are given and students solve for the independent variable Ex. $C=20+0.07m$ where $c=27$ or $C=20+0.07m$ where $m=27$ 		<p><u>Region XIII 8th Sense</u> Objective 2 8.5A</p>
<p>Patterns, relationships, and algebraic thinking. The student identifies proportional or non-proportional linear relationships in problem situations and solves problems.</p> <p>8.3B estimate and find solutions to application problems involving percents and other proportional relationships such as similarity and rates</p>	<ul style="list-style-type: none"> • include real world situations such as speed, tax, sale price, % change, scale drawings, mark-up/discount, recipes, commission, simple interest 		<p><u>Region XIII 8th Sense</u> Objective 2 8.3B</p> <p><u>TexTeams Algebraic Reasoning</u> Cross-Country Cycling (on share drive) Making Connections (on share drive)</p>