


8th Grade Math Curriculum Bundle # 2

Title		Suggested Dates
Linear Relationships and Proportionality		September 14 – October 2 (14 Days)

Big Idea/Enduring Understanding	Guiding Questions
Examining the rate of change and the starting point of a relationship can determine if a relationship is proportional or non-proportional.	<ol style="list-style-type: none"> 1. How can you determine the rate of change and starting point of a linear relationship from a graph? A table? Equations? 2. How do you determine if a relationship is proportional or non-proportional?
Rates and starting points allow us to represent and solve problems such as determining the best bargains and average rate of travel.	<ol style="list-style-type: none"> 1. How do you determine a unit rate? 2. How do unit rates help to determine which deal is best?
Different societies use different measurement systems and it is necessary to convert between customary and metric systems.	<ol style="list-style-type: none"> 1. How do you convert metric units to customary units and why is it useful? 2. How are measurement conversions related to ratios and proportionality?

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>8.1 Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations.</p> <p>8.1B select and use appropriate forms of rational numbers to solve real-life problems including those involving proportional relationships</p> <p><i>Note: Focus on proportions. Repeated in Bundle 1 for operations with rational numbers, and in bundle 4 for percents. Percent applications in this bundle are questions that require conversion only.</i></p>	<ul style="list-style-type: none"> • Set up a proportion for a real world situation 	<p><u>CMP2 Moving Straight Ahead</u> Pearson Investigation 1 All, 2.1, 2.2, 2.4, 3.1</p>	<p><u>NCTM: Navigation Number and Operation</u> Buying Pizza Teacher notes pg 85-89 Student pg 131</p>

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<p>8.2 Number, operation, and quantitative reasoning. The student selects and uses appropriate operations to solve problems and justify solutions.</p> <p>8.2D use multiplication by a given constant factor (including unit rate) to represent and solve problems involving proportional relationships including conversions between measurement systems.</p> <p>Note: NEW – this TEKS has changed - conversions between measurement systems are a new requirement this year.</p>	<ul style="list-style-type: none"> • utilize customary and metric conversions <u>within</u> a system (conversion factor) and <u>between</u> systems • select/write equations that represent a situation • include real world situations such as speed, density, price, and recipes • discuss appropriate labels and units 		<p><u>NCTM: Navigation Number and Operation</u> Exchanging Currency Teacher notes pg 90-92 Student notes pg 133</p> <p><u>Prentice Hall</u> Chapter 4-Section 2 Pg 166</p>
<p>8.3 Patterns, relationships, and algebraic thinking. The student identifies proportional or non-proportional linear relationships in problem situations and solves problems.</p> <p>8.3A compare and contrast proportional and non-proportional linear relationships</p>	<ul style="list-style-type: none"> • identify proportional and non-proportional with tables, graphs and equations • relate a proportional equation that correlates with a real world situation 		<p><u>NCTM: Navigation Number and Operation</u> Pledge Drive Teacher notes pg 93 Student notes pg 135-137</p> <p>Comparing Tables, Rules, and Graphs Teacher notes pg 95-97 Student notes pg 138-144</p> <p>Using a Unit Rate to Solve Problems Teacher notes pg 104-109 Student notes pg 147-149</p>
<p>8.3 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> <p>Note: Focus on rates. Repeated in bundle 3 for focus on proportional relationships, and in bundle 4 for focus on percent applications and similarity.</p>	<ul style="list-style-type: none"> • discuss appropriate labels/units 		<p><u>Region IV Accelerated Curriculum 8th Grade</u> Unit 3 Lesson 3: Proportional and Non-proportional Relationships</p>