

PAP 7th Grade Curriculum Bundle #2

Title	Suggested Dates
Operations with Positive Rational Numbers and Addition and Subtraction of Integers, Compare and Order Rationals	September 14 – October 2 (14 Days)

Big Idea/Enduring Understanding	Guiding Questions
Different forms of rational numbers are appropriate for use in different situations. (Examples: determining parts of a whole in a recipe, measuring long distances or microscopic objects, recording data, representing the amount of increase or decrease in given situations such as yards gained or lost on a football field, checking account balances, and elevations.)	<ol style="list-style-type: none"> 1. In what ways can rational numbers be represented? 2. In what situations would you want to use percents? decimals? fractions? integers? 3. What form of rational numbers would be best to compare and order numbers? 4. How do you choose the best operation(s) to use in given situations with rational numbers and integers?
Multiplication does not always make a larger quantity. Division does not always make a smaller quantity.	<ol style="list-style-type: none"> 1. Does multiplication always result in a product larger than either factor? Explain. 2. Does division always result in a quotient smaller than the dividend and divisor? Explain.
Integers are the numbers one can count with items such as apples or fingers, and their opposites as well as 0.	<ol style="list-style-type: none"> 1. How can you decide if the sum of two numbers is positive, negative or zero without actually calculating the sum or difference? 2. How can any difference, $a - b$, be restated as an equivalent addition statement?

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>7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions.</p> <p>7.2A represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers</p>	<ul style="list-style-type: none"> • EMPASIZE models (The algorithm was taught in 6th grade) • write or select the correct expression • use mixed numbers, proper and improper fractions 	<p>AIRR 7th Grade Activity #52-67</p> <p>Understanding Math Understanding Fractions: Topic 10, Topic 11</p> <p>Prentice Hall (8th) Activity Lab 2-5a</p> <p>Prentice Hall (7th) 1.3a – 1.4, 3.4a – 3.5</p>

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<p>8.1 Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations.</p> <p>8.1A compare and order rational numbers in various forms including integers, percents, and positive and negative fractions and decimals</p> <p>Note: Integers and rationals greater than and less than 1.</p>	<ul style="list-style-type: none"> • Integers • Positive and negative fractions and decimals • Arranging on a number line • Identify equivalent forms • Finding rational numbers between different combinations of rational numbers. 	<p>CMP2 Accentuate the Negative Investigation 1</p>	<p>PH Textbook (8th) 1.2, 2.2, 2.3 Kamico- Developmental Series Math 8 Book 1. “Flip for your order” pg. 9-27</p> <p>Ordering rational numbers</p> <p>PH Textbook (8th) Activity- 2-3, pg. 62</p> <p>AIRR 8th grade Activity #7-14, 21</p>
<p>8.1 Number, operation, and quantitative reasoning. The student understands that different forms of numbers are appropriate for different situations.</p> <p>8.1E compare and order real numbers with a calculator</p> <p>Note: This is a new TEKS for 8th grade this year</p> <p>Note: All rational numbers here. Repeated in bundle 3 for irrationals.</p>	<ul style="list-style-type: none"> • Use calculator to convert different forms of numbers into the same form to compare • Use calculators to convert decimals into fractions, and fractions into decimals 		
<p>7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions.</p> <p>7.2C use models, such as concrete objects, pictorial models, and number lines, to add, subtract, multiply, and divide integers and connect the actions to algorithms</p>	<ul style="list-style-type: none"> • number line-vertical and horizontal • two color counters • color tiles • positive and negative signs • applications such as altitude, temperature, profits/loss, deposits/withdraws • Add and subtract only in this bundle 	<p>CMP2 Accentuate the Negative Pearson Investigation 1, 2</p>	<p>PH Textbook (8th) Chapter 1-2 through 1-3</p> <p>PH Textbook (7th) 1.6 – 1.7</p> <p>AIRR 7th grade Activity #82 - 97</p> <p>Kamico 7th Grade Match Point Activity</p> <p>BrainPop.Com Adding & Subtracting Integers</p> <p>Understanding Math: Understanding Integers: Topic</p>

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<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>Note: Teach operations with rational numbers in context. Proportions are in bundle 7 and percents are in bundle 6-7. Percent applications in this bundle are basic questions that might require a conversion.</p>	<ul style="list-style-type: none"> • Select and use a variety of forms of rational numbers within a problem to solve real-world applications in the form of fractions and decimals • Use all four operations with positive rational numbers • Include problems that require students to know order of operations for +, -, x, / and parentheses • Add and subtract integers and rational numbers (multiplication and division in bundle 3) 		<p>6, Topic 7, Topic 8</p> <p>PH Textbook (7th) 1.2 through 1.4, 3.1 through 3.5</p> <p>BrainPop.Com Adding & subtracting fractions</p>
<p>8.2 Number, operation, and quantitative reasoning. The student selects and uses appropriate operations to solve problems and justify solutions.</p> <p>8.2A select appropriate operations to solve problems involving rational numbers and justify the selections</p> <p>Note: Order of Operations with exponents is in the next bundle. This bundle includes parentheses and the 4 operations.</p>	<ul style="list-style-type: none"> • choose correct expression/equation for a problem situation • explain which operation to use and justify its use • Include problems that require students to know order of operations for +, -, x, / and parentheses 		<p>Kamico- Developmental Series Math 8 Book 1 pg62-72</p> <p>Understanding Math Understanding Integers: Topic 9</p> <p>AIRR 8th grade Activity #56-57</p> <p>Accelerated Curriculum 8th Unit 1 Lesson 3</p>
<p>8.2 Number, operation, and quantitative reasoning. The student selects and uses appropriate operations to solve problems and justify solutions.</p> <p>8.2B use appropriate operations to solve problems involving rational numbers in problem situations</p>	<ul style="list-style-type: none"> • use multiple operations in a problem (+, -, x, /) • solve multi-step problems • integers (+,-) • use real-life problems 		<p>AIRR 8th grade Activity # 58-71</p>
<p>8.2 Number, operation, and quantitative reasoning. The student selects and uses appropriate operations to solve problems and justify solutions.</p> <p>8.2C evaluate a solution for reasonableness</p>	<ul style="list-style-type: none"> • discuss appropriate labels for solutions • use mathematical reasoning to justify solution • use of estimation throughout process 		<p>AIRR 8th grade Activity # 72-76</p>