PAP 6th Grade Curriculum Bundle #7

Title	Suggested Dates
Decimal Computation – Multiplying and Dividing, Start Proportional Reasoning (1 week)	January 5 – January 29 (18 days)

Big Idea/Enduring Understanding	Guiding Questions
Multiplication does not always make a larger quantity. Division does not always make a smaller quantity.	1. How are operations with decimals the same as operations with fractions? How are they different?
Relationships between quantities (part-to-part and part-to-whole) can be expressed many ways.	2. How can you choose an appropriate method to make comparisons among quantities using ratios, percents, fractions, rates, or differences? 3. Describe a situation in which equivalent ratios can be used to express a proportional relationship. 4. How is being able to express a numerical relationship as a ratio helpful/useful?
The relationship between some measurable quantity and one unit of another is called a unit rate.	1. Why are unit rates needed to make effective comparisons?
Percents are used in the real-world to describe part of a whole. One percent is equal to one one-hundredth (1/100) of a whole.	1. Why are percents used in store sales signs rather than fractions or decimals? 2. How can you use estimation and mental math to calculate a 20% tip? 3. How is a percent to decimal equivalence related to money?

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)	
7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. 7.2A represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers Note: Focus on decimals	• EMPASIZE models • write or select the correct expression	**CMP2 Bits and Pieces III** Investigation 1 ACE Questions Only Investigation 2,3	**PH Textbook**: Chapter 1.8, 1.9, **PH Textbook – 7th Grade:** Chapter 1.3, 1.4

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7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. 7.2B use addition, subtraction, multiplication, and division to solve problems involving fractions and decimals Note: Focus on multiplication and division of decimals	• connect to models • use problems that need to include answers as visual models • solve decimal problems with at least 2 digit divisors and 3 digit dividends w/o technology • solve decimal problems with at least 2 digits times 3 digits without technology • extract data from tables (from multiple forms) • Use multiple forms of numbers in a given problem		**LTF** Goodyear Walks Using the Rule of Four pg 174-175
7.3 Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships. 7.3A estimate and find solutions to application problems involving percent Note: Percent applications for 6th grade are real world applications that involve converting the percent to a fraction or a decimal and multiplying	• Discount, sale price, tax, total, amount of commission, amount of increase or decrease, markup/markdown	**CMP2 Bits and Pieces III** Pearson Investigation 4, 5	**Understanding Math** Understanding Percent: Topic 5 **AIRR 7th grade** Activity #117-119, 129-132, 137-141 **Closing the Distance 7th** Lesson 8:Percents pg. 125-142
7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. 7.2F select and use appropriate operations to solve problems and justify the selections	• recognize correct steps in order to solve problem • choose correct expression/equation for a problem situation		
7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. 7.2G determine the reasonableness of a solution to a problem	• solve problems and identify answer in terms of "between" ranges of data (ex. between 5.2 and 6.3) • use mathematical reasoning to justify solution • use of estimation throughout process • multi-step problems		
7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. 7.2E simplify numerical expressions involving order of operations and exponents	• use multiple symbols for all operations • use multiple symbols for "grouping symbols" • use fractions and decimals		**PH Textbook** Chapter 1.9 **LTF** Unit 1 Diagnostic

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Proportional Reasoning ↓ (1 week) continued in next bundle			
6.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve problems and justify solutions. 6.2C use multiplication and division of whole numbers to solve problems including situations involving equivalent ratios and rates Note: Continued in bundle 8	• use of proportions but not limited to cross products • involve whole number situations relevant to real world • write remainders as a fraction in simplest form and decimals • verify solutions with and without a calculator • identify ratios in various forms • make predictions using proportions • solve multi-step problems	**CMP2 Comparing and Scaling** Pearson Investigations 1, 2	
7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. 7.2D use division to find unit rates and ratios in proportional relationships such as speed, density, price, recipes, and student-teacher ratio Note: Continued in bundle 8	• model equivalent and proportional relationships • use unit rates with appropriate labeling • involve real world situations • discuss appropriate labels/units • use real life conversions (ex. dozen) • use measurement vocabulary • use customary and metric units		**LTF** Cereal Math pg 160-163 Rating the Trip pg 164-167
6.3 Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships. 6.3A use ratios to describe proportional situations Note: Continued in bundle 8	• use ratios that may or may not be in lowest terms • represent ratios in a table, equation, or verbal description • recognize the three written forms of a ratio (ex. 1:2, 1/2, 1 to 2) • generate equivalent forms of ratios and simplify to lowest terms		
6.3 Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships. 6.3C use ratios to make predictions in proportional situations Note: Continued in bundle 8	• set up a proportion problem from a verbal description and solve • use data in a table or make table with given data • demonstrates proportional situations involving customary and metric units • demonstrates proportional situations involving rate and time		