

Pre-AP 6th Grade Math Curriculum Bundle # 2

Title	Suggested Dates
Number Sense, Order of Operations with Whole Numbers, Solving One- and Two-Step Equations	September 14 – October 2 (14 Days)

Big Idea/Enduring Understanding	Guiding Questions
Number sense can be strengthened through the study of properties of whole numbers such as prime factorizations and factors and multiples.	<ol style="list-style-type: none"> 1. How do prime and composite numbers relate to factors and multiples? 2. How can properties of whole numbers, such as greatest common factors, be used to develop strategies that give you a distinct advantage in real life situations? 3. How can any whole number be expressed as the product of prime numbers? 4. How can factors and multiples be used to solve problems in everyday life? 5. How can a conjecture strengthen conversation and understanding about mathematical ideas?
The result of a series of operations is impacted by the order in which the operations are performed. There is a conventional order of operations that produces a standard outcome for a given expression.	<ol style="list-style-type: none"> 1. Why do we need a conventional order of operations? 2. What is a good way to remember our convention for order of operations?

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)	
6.1 Number, operation, and quantitative reasoning. The student represents and uses rational numbers in a variety of equivalent forms. 6.1D write prime factorizations using exponents	<ul style="list-style-type: none"> • factor trees to show prime factorization • standard notation • exponential notation • listing factors • use divisibility rules for 2, 3, 5, 9,10, 25, 100 (4 and 6 are optional) 	CMP2 Prime Time Pearson Investigations 1, 2, 3, 4, 5 (5 for homework?)	PH: Lessons 4-3 AIRR: Activities 43 - 50

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<p>6.1 Number, operation, and quantitative reasoning. The student represents and uses rational numbers in a variety of equivalent forms.</p> <p>6.1E identify factors of a positive integer, common factors, and the greatest common factor of a set of positive integers</p> <p><i>Notes: identifying factors, common factors & GCF</i></p>	<ul style="list-style-type: none"> • use a set of at least 3 integers • use numbers greater than 10 • include real world applications 		<p>PH: Lessons 4-3, 4-4</p> <p>AIRR: Activities 51 - 57</p>
<p>6.1 Number, operation, and quantitative reasoning. The student represents and uses rational numbers in a variety of equivalent forms.</p> <p>6.1F identify multiples of a positive integer and common multiples and the least common multiple of a set of positive integers</p>	<ul style="list-style-type: none"> • use at least 3 integers in the set • real world applications 		<p>PH: Lessons 4-7, 4-8</p> <p>AIRR: Activities 58 - 63</p>
<p>6.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve problems and justify solutions.</p> <p>6.2E use order of operations to simplify whole number expressions in problem solving situations</p>	<ul style="list-style-type: none"> • solve problems with both addition or subtraction and multiplication or division with and without parentheses • use whole numbers only • identify the specific step when evaluating a given expression • express the operation of multiplication in various forms 		<p>PH: Lessons 1-4, 3-2</p> <p>AIRR: Activities 95 - 100</p>
<p>7.2 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions.</p> <p>7.2E simplify numerical expressions involving order of operations and exponents</p> <p><i>Note: Whole numbers only</i></p>	<ul style="list-style-type: none"> • use multiple symbols for all operations • use multiple symbols for “grouping symbols” 		<p>PH 6th :Lesson 1-4</p> <p>PH 7th: Lesson 1-9</p> <p>TexTeams AR Making Connections (May be used in Bundle 7)</p>

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<p>7.5 Patterns, relationships, and algebraic thinking. The student uses equations to solve problems.</p> <p>7.5A use concrete and pictorial models to solve equations and use symbols to record the actions</p> <p>Note: Keys for the models are very important-they change with each problem! Repeated in bundle 8</p>	<ul style="list-style-type: none"> • solve one and two-step equations, with models, using positive whole numbers only • models using balance scales, algebra tiles, cups and beans, or other symbols 		<p>PH Textbook- 7th grade Chapter 4-2, 4-3</p> <p>AIRR 7th : Activities 181 – 188</p> <p>Region IV Grade 7 Concrete Models to Solve Equations Activity</p> <p>Understanding Math Understanding Equations: Topic 2, Topic 3</p>
<p>6.12/7.14 Underlying processes and mathematical tools. The student communicates about Grade 6/7 mathematics through informal and mathematical language, representations, and models.</p> <p>6.12A, 7.14A communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models</p> <p>Note: Ongoing throughout every bundle</p>	<ul style="list-style-type: none"> • process skill to be addressed with relevant content 		<p>PH: Lessons 1-6, 2-1, 3-1, 3-2, 3-5</p> <p>LTF The Best Payment Using Sequences pg 186-193</p>
<p>6.12/7.14 Underlying processes and mathematical tools. The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.</p> <p>6.12B, 7.14B evaluate the effectiveness of different representations to communicate ideas</p> <p>Note: Ongoing throughout every bundle</p>	<ul style="list-style-type: none"> • process skill to be addressed with relevant content 		<p>PH: Lessons 2-4, 2-6, 2-7</p>