

## 7<sup>th</sup> Grade Math Curriculum Bundle # 6

Title	Suggested Dates
Finish Rules, Solving Equations and nth Term	December 7 – December 18 (10 days)

Big Idea/Enduring Understanding	Guiding Questions
Solving an equation means finding the value of the variable that makes the number sentence mathematically true.	1. How would you determine the value of the variable in the model of an equation?
A variable in a formula is the stage/process/position number. An important relationship in a sequence of numbers is between the term and the value of the term.	1. What is the importance of the variable in an expression or equation? 2. How would you determine the formula from which a given sequence of numbers is built?

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><b>7.4 Patterns, relationships, and algebraic thinking. The student represents a relationship in numerical, geometric, verbal, and symbolic form.</b></p> <p>7.4C use words and symbols to describe the relationship between the terms in an arithmetic sequence (with a constant rate of change) and their positions in the sequence</p>	<ul style="list-style-type: none"> <li>• determine the <math>n^{\text{th}}</math> term in a pattern in table or list</li> <li>• connect term number with the position in the sequence.</li> <li>• use the <math>n^{\text{th}}</math> rule to find a specific term</li> <li>• generate an expression to describe a sequence (verbal and nonverbal)</li> <li>• use both vertical and horizontal tables</li> </ul>	<p><b>CMP2 Moving Straight Ahead</b> Pearson Investigation 3.2 &amp; 3.3</p>	<p><b>PH Textbook</b> 9.2 through 9.4</p> <p><b>AIRR Grade 7</b> Activities #169-180</p> <p><b>Kamico 7<sup>th</sup> Grade</b> Sequential Crossing pg. 241</p> <p><b>Tex Teams (Algebraic Reasoning)</b> Stretching Sequencing Activity</p> <p><b>Bonnie McNemar</b> 4 corner design/tile patterns</p>

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<p><b>7.5 Patterns, relationships, and algebraic thinking. The student uses equations to solve problems.</b></p> <p>7.5A use concrete and pictorial models to solve equations and use symbols to record the actions</p> <p><u>Teacher Note:</u> Keys for the models are very important. They change with each problem!</p>	<ul style="list-style-type: none"> <li>• solve equations with two variables (MODELS only)</li> <li>• solve one and two-step equations, with models, using positive whole numbers only</li> <li>• solving equations with variables on both sides using models</li> <li>• models using balance scales, algebra tiles, cups and beans, or other symbols</li> </ul>		<p><b>PH Textbook</b> Chapter 4.2 through 4.3</p> <p><b>AIRR Grade 7</b> Activities #181-188</p> <p><b>Kamico Grade 7</b> Symbol Slide pg. 248</p> <p><b>Region IV Grade 7</b> Concrete Models to Solve Equations Activity</p> <p><b>Understanding Math</b> Understanding Equations: Topic 2, Topic 3</p>
<p><b>7.5 Patterns, relationships, and algebraic thinking. The student uses equations to solve problems.</b></p> <p>7.5B formulate problem situations when given a simple equation and formulate an equation when given a problem situation</p>	<ul style="list-style-type: none"> <li>• translate word phrases to algebraic expressions</li> <li>• translate word phrases to algebraic equations</li> <li>• write a real world situation given an equation or expression</li> <li>• given a real world situation write an equation/expression</li> </ul>		<p><b>PH Textbook</b> Chapter 9.6</p> <p><b>AIRR Grade 7</b> Activities #189-197</p> <p><b>Kamico 7<sup>th</sup> Grade</b> Stellar Slide pg. 218</p>
<p><b>7.13 Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</b></p> <p>7.13A Identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics</p> <p><u>Note: Ongoing</u></p>	<ul style="list-style-type: none"> <li>• identify necessary, needed and relevant information to solve problems</li> </ul>		<p><b>Kamico 7<sup>th</sup> Grade</b> Inquisitive Interviews Activity pg 195</p> <p><b>AIRR Grade 7</b> Activities #354-355</p>

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<p><b>7.13 Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</b></p> <p>7.13B use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness</p> <p><a href="#">Note: Ongoing</a></p>	<p style="color: red;">Process skill to be addressed with relevant content</p>		<p><b>Kamico 7<sup>th</sup> Grade</b> Step City Activity</p>
<p><b>7.13 Underlying processes and mathematical tools. The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.</b></p> <p>7.13C select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem</p> <p><a href="#">Note: Ongoing</a></p>	<p style="color: red;">Process skill to be addressed with relevant content</p>		<p><b>Kamico 7<sup>th</sup> Grade</b> Strategy Skits Activity pg. 210</p>