

## Grade 7

**As PA transitions to the PA Core Standards, the focus of Grade 7 instruction needs to shift:**

<b>Less emphasis on:</b>	<b>More emphasis on:</b>
	<p><b><u>Standards for Mathematical Practice</u></b></p> <ul style="list-style-type: none"> <li>Describe mathematical “habits of mind”</li> <li>Standards for mathematical proficiency: reasoning, problem solving, modeling, decision making, and engagement</li> <li>Connect with content standards in each grade</li> </ul>
<p><b><u>Numbers &amp; Operations</u></b></p> <ul style="list-style-type: none"> <li>Representing and using numbers in equivalent forms</li> <li>Modeling and comparing rational numbers</li> <li>Applying place value concepts, GCF and LCM</li> <li>Operations with integers</li> <li>Using order of operations</li> <li>Estimating solutions</li> </ul>	<p><b><u>Numbers &amp; Operations</u></b></p> <ul style="list-style-type: none"> <li>Analyzing proportional relationships</li> <li>Representing proportional relationships by equations</li> <li>Using proportional relationships to solve multi-step problems</li> <li>Unit rates associated with fractions</li> <li>Operations with rational numbers</li> <li>Convert rational numbers to a decimal using long division</li> </ul>
<p><b><u>Measurement</u></b></p> <ul style="list-style-type: none"> <li>Using conversions to add &amp; subtract</li> </ul>	<p><b><u>Measurement</u></b></p>
<p><b><u>Geometry</u></b></p> <ul style="list-style-type: none"> <li>Properties of 1-, 2-, and 3-dimensional shapes and classifying 2- and 3-dimensional shapes</li> <li>Predicting the result of a translation, rotation and/or reflection</li> <li>Locating/plotting points on the coordinate plane</li> <li>Predicting the result of a translation, rotation and/or reflection</li> </ul>	<p><b><u>Geometry</u></b></p> <ul style="list-style-type: none"> <li>Real life mathematical problems involving angle measure, area, surface area, and volume.</li> <li>Knowing the formulas for area &amp; circumference of a circle and use them to solve problems</li> <li>Reproducing scale drawings using a different scale</li> <li>Using scale drawing to compute actual lengths and areas</li> </ul>

The purpose of this document is to provide a summary of changes in emphasis as Pennsylvania transitions from the PA Academic Standards to the PA Core Standards. This is not intended to be a curriculum guide or is it inclusive of all grade levels standards - only to identify shifts in emphasis of instruction.

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**As PA transitions to the PA Core Standards, the focus of Grade 7 instruction needs to shift:**

<p><b><u>Algebraic Concepts</u></b></p> <ul style="list-style-type: none"> <li>• Properties of numbers (Commutative, Associative, Identity, Distributive)</li> <li>• Extending/finding a missing element of a pattern</li> <li>• Determining function rules from patterns</li> <li>• Describing the relationship of data involving constant rate of change</li> </ul>	<p><b><u>Algebraic Concepts</u></b></p> <ul style="list-style-type: none"> <li>• Using properties of operations to write equivalent expressions</li> <li>• Solving multi-step, real-life mathematical problems using rational numbers</li> <li>• Solving word problems using equations and inequalities</li> </ul>
<p><b><u>Data Analysis &amp; Probability</u></b></p> <ul style="list-style-type: none"> <li>• Organizing and analyzing data in different types of displays</li> <li>• Interpreting trends based on a graph</li> <li>• Finding the probability of simple events</li> </ul>	<p><b><u>Data Analysis &amp; Probability</u></b></p> <ul style="list-style-type: none"> <li>• Using random sampling to draw inferences</li> <li>• Measure of center and variability with random samples</li> <li>• Drawing informal comparative inferences about two populations</li> <li>• Developing, using and evaluating probability models</li> <li>• Finding the probability of compound events</li> </ul>

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