

**Grade 6**

**As PA transitions to the PA Core Standards, the focus of Grade 6 instruction needs to shift:**

<b>Less emphasis on:</b>	<b>More emphasis on:</b>
	<p><b>Standards for Mathematical Practice</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>Numbers and Operations</b></p> <ul style="list-style-type: none"> <li>Modeling and comparing values of whole numbers, mixed numbers, fractions and decimals</li> <li>Representing whole numbers, fractions, mixed numbers, decimals, and percents in equivalent forms</li> <li>Applying place value concepts to order and compare decimals, fractions, and mixed numbers</li> <li>Applying properties to evaluate numerical expressions</li> <li>Estimating solutions of problems involving whole numbers and decimals</li> </ul>	<p><b>Numbers and Operations</b></p> <ul style="list-style-type: none"> <li>Computing fluently with multi-digit numbers and finding common factors and common multiples</li> <li>Extending previous understandings of arithmetic to algebraic expressions and applying the properties of operations to generate equivalent expressions</li> <li>Using visual models to conceptualize multiplying and dividing fractions</li> <li>Developing an understanding of statistical variability/ Ratio concepts/ratio reasoning to solve real world problems/ratio relationships/equivalent ratio tables/plotting on coordinate plane/solving unit rate problems</li> </ul>
<p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>Measuring length, perimeter, area, measuring angles with a protractor in isolation</li> <li>Basic Metric and Customary Measurement Conversions</li> </ul>	<p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>Using nets to find surface area and applying in a real-world context</li> <li>Ratio reasoning to convert measurement units</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.

## Grade 6

### As PA transitions to the PA Core Standards, the focus of Grade 6 instruction needs to shift:

<p><b><u>Geometry</u></b></p> <ul style="list-style-type: none"> <li>Identifying and classifying 1,2, and 3 dimensional shapes</li> <li>Translations, rotations, and reflections</li> <li>Identifying location of points on a 2-dimensional coordinate system</li> <li>Identifying parts of right triangles</li> </ul>	<p><b><u>Geometry</u></b></p> <ul style="list-style-type: none"> <li>Understanding signs of numbers of 3 dimensional shapes in four quadrants of the coordinate plane</li> <li>Finding areas of geometric shapes through composition and decomposition in the context of real-world problems</li> <li>Using coordinates in the coordinate plane to find the length of a side of a polygon</li> </ul>
<p><b><u>Algebraic Concepts</u></b></p> <ul style="list-style-type: none"> <li>Forming a rule for whole number patterns/Determining a function rule from a table or graph</li> <li>Comparisons of number</li> </ul>	<p><b><u>Algebraic Concepts</u></b></p> <ul style="list-style-type: none"> <li>Writing and evaluating numerical expressions involving whole-number exponents, using variables, and order of operations in the context of real-world problems</li> <li>Reasoning about and solving one-variable equations and inequalities/Using substitution</li> <li>Applying and extending previous understandings of numbers to the system of rational numbers (i.e. positive and negative numbers in the real world</li> <li>Ordering rational numbers in the real world</li> <li>Understanding absolute value/positive and negative numbers/rational numbers conceptually</li> </ul>
<p><b><u>Data Analysis &amp; Probability</u></b></p> <ul style="list-style-type: none"> <li>Probability and Predictions: Estimating outcomes and likelihood</li> <li>Gathering and selecting an appropriate format to display data</li> </ul>	<p><b><u>Data Analysis &amp; Probability</u></b></p> <ul style="list-style-type: none"> <li>Recognizing statistical variability</li> <li>Center, spread, and overall shape of data and its meaning</li> <li>Measures of center and measures of variation</li> </ul>

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