



### **Grade 6**

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

Less emphasis on:	More emphasis on:
	<ul> <li>Standards for Mathematical Practice</li> <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>
<ul> <li>Numbers and Operations</li> <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>	<ul> <li>Numbers and Operations</li> <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>
<ul> <li>Measurement</li> <li>Measuring length, perimeter, area, measuring angles with a protractor in isolation</li> <li>Basic Metric and Customary Measurement Conversions</li> </ul>	Using nets to find surface area and applying in a real-world context     Ratio reasoning to convert measurement units

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 6 instruction needs to shift:

#### Geometry Geometry Identifying and classifying 1,2, and Understanding signs of numbers of 3 dimensional shapes 3 dimensional shapes in four quadrants of the Translations, rotations, and coordinate plane reflections Finding areas of geometric shapes through composition and decomposition in the context of Identifying location of points on a 2-dimensional coordinate system real-world problems Identifying parts of right triangles Using coordinates in the coordinate plane to find the length of a side of a polygon **Algebraic Concepts Algebraic Concepts** Forming a rule for whole number patterns/Determining a function rule from a table or graph Writing and evaluating numerical expressions involving Comparisons of number whole-number exponents, using variables, and order of operations in the context of real-world problems Reasoning about and solving one-variable equations and inequalities/Using substitution Applying and extending previous understandings of numbers to the system of rational numbers (i.e. positive and negative numbers in the real world Ordering rational numbers in the real world Understanding absolute value/positive and negative numbers/rational numbers conceptually **Data Analysis & Probability Data Analysis & Probability** Probability and Predictions: Recognizing statistical variability Estimating outcomes and likelihood Center, spread, and overall shape of data and its meaning Gathering and selecting an Measures of center and measures of variation appropriate format to display data

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