

## Portrait of an Abington Heights 3rd Grade Mathematician



By the end of 3rd Grade, students will:

Numbers & Operations in Base Ten	Numbers & Operations - Fractions	Operations and Algebraic Thinking	Geometry	Measurement and Data
<ul style="list-style-type: none"> <li><input type="checkbox"/> Use place value to round two- and three-digit numbers to the nearest 10 or 100</li> <li><input type="checkbox"/> Fluently add and subtract within 1,000 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction</li> <li><input type="checkbox"/> Multiply one-digit whole numbers by multiples of 10 in the range of 10-90 using strategies based on place value and properties of operations (ex. <math>4 \times 80</math>, <math>5 \times 60</math>)</li> <li><input type="checkbox"/> Order a set of (up to 4) numbers from least to greatest or greatest to least (up through 9,999)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Develop understanding of fractions (whole divided into equal parts)</li> <li><input type="checkbox"/> Identify and represent fractions on a number line</li> <li><input type="checkbox"/> Explore equivalent fractions (<math>\frac{1}{2} = \frac{2}{4}</math>)</li> <li><input type="checkbox"/> Explore whole number, fraction relationship (<math>4 = \frac{4}{1}</math>)</li> <li><input type="checkbox"/> Compare fractions with like denominators using <math>&lt;</math>, <math>&gt;</math>, <math>=</math> and reason with fraction models</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use multiplication and division within 100 to solve word problems involving equal groups, arrays, and measurement quantities</li> <li><input type="checkbox"/> Determine the unknown number of a multiplication or division equation (ex. <math>4 \times ? = 12</math>)</li> <li><input type="checkbox"/> Apply the commutative property of multiplication (If <math>4 \times 3 = 12</math>, then <math>3 \times 4 = 12</math>)</li> <li><input type="checkbox"/> Apply the associative property of multiplication (<math>2 \times 3 \times 4</math> is the same as <math>2 \times 12</math>)</li> <li><input type="checkbox"/> Fluently multiply and divide within 100</li> <li><input type="checkbox"/> Know all multiplication facts up to 9x9 from memory</li> <li><input type="checkbox"/> Solve two-step word problems using the four operations</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Understand that shapes in different categories (ex. rhombuses, rectangles, and others) may share attributes and that shared attributes can define a larger category (ex. quadrilaterals)</li> <li><input type="checkbox"/> Partition shapes into parts with equal areas and connect with knowledge of fractions</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Tell and write time to the nearest minute</li> <li><input type="checkbox"/> Solve word problems involving elapsed time</li> <li><input type="checkbox"/> Measure and estimate liquid volumes and masses of objects using standard &amp; metric units</li> <li><input type="checkbox"/> Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units</li> <li><input type="checkbox"/> Measure to the nearest <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math> inch or nearest cm</li> <li><input type="checkbox"/> Compare total value of coins and bills (up to \$5)</li> <li><input type="checkbox"/> Make change for amount up to \$5.00 with no more than \$2.00 change given</li> <li><input type="checkbox"/> Round amounts of money to nearest dollar</li> <li><input type="checkbox"/> Draw scaled picture graph and bar graph and solve one-step and two-step problems related to graphs</li> <li><input type="checkbox"/> Explore area (relate to multiplication &amp; division)</li> <li><input type="checkbox"/> Identify perimeter of polygons and find unknown side length</li> </ul>