

## Portrait of an Abington Heights 4th Grade Mathematician



By the end of 4th 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"/> Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right</li> <li><input type="checkbox"/> Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form</li> <li><input type="checkbox"/> Compare multi-digit numbers using <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> <li><input type="checkbox"/> Round multi-digit whole numbers (through 1,000,000) to any place</li> <li><input type="checkbox"/> Fluently add and subtract multi-digit whole numbers within 1,000,000</li> <li><input type="checkbox"/> Multiply two-digit by two-digit numbers and up to four digits by one digit</li> <li><input type="checkbox"/> Divide up to a four-digit number by a one-digit number</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Recognize and generate equivalent fractions</li> <li><input type="checkbox"/> Compare two fractions with unlike numerators and denominators</li> <li><input type="checkbox"/> Add and subtract fractions with like denominators</li> <li><input type="checkbox"/> Add and subtract mixed numbers with like denominators</li> <li><input type="checkbox"/> Solve addition, subtraction, and multiplication word problems involving fractions</li> <li><input type="checkbox"/> Understand decimal notation and compare two decimals to the hundredths using <math>&lt;</math>, <math>&gt;</math>, <math>=</math></li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Solve multi-step whole number word problems using the four operations including problems with remainders</li> <li><input type="checkbox"/> Explore prime and composite numbers</li> <li><input type="checkbox"/> Explore factors and multiples</li> <li><input type="checkbox"/> Analyze and explain patterns</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Explore points, lines, line segments, rays, angles (right, acute, obtuse) and parallel and perpendicular lines</li> <li><input type="checkbox"/> Classify two-dimensional figures based on attributes</li> <li><input type="checkbox"/> Explore right triangles</li> <li><input type="checkbox"/> Identify symmetry of two-dimensional figures</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Solve problems involving measurement conversions</li> <li><input type="checkbox"/> Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, (including problems involving simple fractions or decimals)</li> <li><input type="checkbox"/> Apply area and perimeter formulas for rectangles in real world and mathematical problems</li> <li><input type="checkbox"/> Identify time as the amount of minutes before or after the hour</li> <li><input type="checkbox"/> Solve problems involving addition and subtraction of fractions of a unit <math>(\frac{1}{2}, \frac{1}{4}, \frac{1}{8})</math> by using information presented in line plots</li> <li><input type="checkbox"/> Measure and explore concepts with angles</li> </ul>