

Domains/Standards for Grades 6-8

6 <sup>th</sup> Grade	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade
<p>Ratios and Proportional Relationships</p> <ul style="list-style-type: none"> <li>Understand ratio concepts and use ratio reasoning to solve problems</li> </ul>	<p>Ratios and Proportional Relationships</p> <ul style="list-style-type: none"> <li>Analyze proportional relationships and use them to solve real-world and mathematical problems</li> </ul>	
<p>The Number System</p> <ul style="list-style-type: none"> <li>Apply and extend previous understandings of multiplication and division to divide fractions by fractions</li> <li>Compute fluently with multi-digit numbers and find common factors and multiples</li> <li>Apply and extend previous understandings of numbers to the system of rational numbers</li> </ul>	<p>The Number System</p> <ul style="list-style-type: none"> <li>Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers</li> </ul>	<p>The Number System</p> <ul style="list-style-type: none"> <li>Know that there are numbers that are not rational, and approximate them by rational numbers</li> </ul>
<p>Expressions and Equations</p> <ul style="list-style-type: none"> <li>Apply and extend previous understandings of arithmetic to algebraic expressions</li> <li>Reason about and solve one-variable equations and inequalities</li> <li>Represent and analyze quantitative relationships between dependent and independent variables</li> </ul>	<p>Expressions and Equations</p> <ul style="list-style-type: none"> <li>Use properties of operations to generate equivalent expressions</li> <li>Solve real-life and mathematical problems using numerical and algebraic expressions and equations</li> </ul>	<p>Expressions and Equations</p> <ul style="list-style-type: none"> <li>Work with radicals and integer exponents</li> <li>Understand the connections between proportional relationships, lines, and linear equations</li> <li>Analyze and solve linear equations and pairs of simultaneous linear equations</li> </ul>
		<p>Functions</p> <ul style="list-style-type: none"> <li>Define, evaluate, and compare functions</li> <li>Use functions to model relationships between quantities</li> </ul>
<p>Geometry</p> <ul style="list-style-type: none"> <li>Solve real-world and mathematical problems involving area, surface area, and volume</li> </ul>	<p>Geometry</p> <ul style="list-style-type: none"> <li>Draw, construct, and describe geometrical figures and describe the relationships between them</li> <li>Solve real-life and mathematical problems involving angle measure, area, surface area, and volume</li> </ul>	<p>Geometry</p> <ul style="list-style-type: none"> <li>Understand congruence and similarity using physical models, transparencies, or geometry software</li> <li>Understand and apply the Pythagorean Theorem</li> <li>Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.</li> </ul>
<p>Statistics and Probability</p> <ul style="list-style-type: none"> <li>Develop understanding of statistical variability</li> <li>Summarize and describe distributions</li> </ul>	<p>Statistics and Probability</p> <ul style="list-style-type: none"> <li>Use random sampling to draw inferences about a population</li> <li>Draw informal comparative inferences about two populations</li> <li>Investigate change processes and develop, use, and evaluate probability models</li> </ul>	<p>Statistics and Probability</p> <ul style="list-style-type: none"> <li>Investigate patterns of association in bivariate data</li> </ul>