

## Mathematics – Grade 8

<b>The Number System</b>	<b>Expressions and Equations</b>
<ul style="list-style-type: none"> <li>Understand that every number has a decimal expansion and use these to compare the size of irrational numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Work with positive and negative exponents, square root and cube root symbols, and scientific notation (e.g., Evaluate <math>\sqrt{36 + 64}</math>; estimate world population as <math>7 \times 10^9</math>).</li> <li>Solve linear equations (e.g., <math>-x + 5(x + 13) = 2x - 8</math>); solve pairs of linear equations (e.g., <math>x + 6y = -1</math> and <math>2x - 2y = 12</math>); and write equations to solve related word problems.</li> </ul>
<b>Functions</b>	<b>Geometry</b>
<ul style="list-style-type: none"> <li>Understand slope, and relating linear equations in two variables to lines in the coordinate plane.</li> <li>Understand functions as rules that assign a unique output number to each input number; use linear functions to model relationships.</li> </ul>	<ul style="list-style-type: none"> <li>Understand congruence and similarity using physical models, transparencies, or geometry software (e.g., Given two congruent figures, show how to obtain one from the other by a sequence of rotations, translations, and/or reflections).</li> </ul>
<b>Statistics and Probability</b>	
<ul style="list-style-type: none"> <li>Analyze statistical relationships by using a best-fit line (a straight line that models an association between two quantities).</li> </ul>	