

# Curriculum – Grade 6

## Grade 6 Mathematics

	<b>Numbers and Operations</b>	<b>Measurement and Geometry</b>	<b>Algebraic Concepts</b>	<b>Data Analysis and Probability</b>
<b>What your child will learn</b>	<ul style="list-style-type: none"><li>• Divisibility rules to determine divisibility and factorization</li><li>• How to find patterns and relationships between numbers and sets of numbers</li><li>• Operations with whole numbers, integers, exponents, fractions and decimals</li><li>• Number theory, including LCM and GCF</li><li>• Ratios, proportions, and percents</li></ul>	<ul style="list-style-type: none"><li>• Estimation of whole numbers decimals, and fractions</li><li>• Conversions of metric to customary units</li><li>• Measure 3-dimensional and plane geometric figures</li><li>• Coordinate graphing</li><li>• Line and angle relationships</li><li>• Classification and definitions of triangles, quadrilaterals, and other polygons</li><li>• Perimeter, area, and volume</li></ul>	<ul style="list-style-type: none"><li>• Introduction to algebra using step-by-step problem solving</li><li>• Evaluating algebraic expressions</li><li>• Order of operations</li><li>• Solving one-step equations</li></ul>	<ul style="list-style-type: none"><li>• How to draw conclusions based on appropriate use of statistics and concepts of probability</li><li>• Methods of solving problems by collecting, organizing, displaying and interpreting data</li><li>• How to identify and analyze different types of averages, including mean, median and mode.</li><li>• Bar graphs, line graphs, stem-and-leaf plots</li></ul>

<p><b>What your child will do</b></p>	<ul style="list-style-type: none"> <li>• Apply divisibility rules to other mathematical situations and problems</li> <li>• Use calculators to solve mathematical problems</li> <li>• Add, subtract, multiply and divide whole numbers, fractions and decimals</li> <li>• Convert between fractions, decimals, and percents</li> <li>• Know and use properties of real numbers: commutative, associative, distributive, identity</li> </ul>	<ul style="list-style-type: none"> <li>• Measure items using Metric and English Systems.</li> <li>• Use a compass and protractor to measure and draw angles, lines and circles</li> <li>• Create and use scale models to represent physical objects</li> <li>• Graph ordered pairs on a coordinate plane</li> <li>• Find perimeter, area and volume of various shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Use both hands-on manipulatives and paper and pencil to solve basic algebraic equations</li> <li>• Evaluate numeric and algebraic expressions using correct order of operations</li> <li>• Find a missing number in a pattern displayed in a table, chart, or graph</li> <li>• Determine a rule based on patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Solve problems by collecting, organizing, displaying, and interpreting data into charts, graphs and tables</li> <li>• Conduct experiments of probability</li> <li>• Use ordered pairs to plot data on a coordinate grid</li> <li>• Calculate the mean, median, mode, and range</li> </ul>
<p><b>What you'll see (products)</b></p>	<ul style="list-style-type: none"> <li>• Models of number lines</li> <li>• Computational problems solved using arithmetic operations</li> </ul>	<ul style="list-style-type: none"> <li>• Labeled pictures and drawings of circles, angles, and 2-dimensional figures of circles, angles, and two-</li> </ul>	<ul style="list-style-type: none"> <li>• Written explanations of how problems are interpreted and solved in the student's own words</li> </ul>	<ul style="list-style-type: none"> <li>• Charts, graphs and tables drawn by the student</li> <li>• Models of probability</li> </ul>

	<ul style="list-style-type: none"> <li>• Concrete and pictorial models used to solve word problems</li> </ul>	<ul style="list-style-type: none"> <li>• dimensional figures</li> <li>• Geometric sketches and models</li> <li>• Calculations for finding perimeter, area, and volume</li> </ul>	<ul style="list-style-type: none"> <li>• Formulas and equations used to solve problems</li> <li>• Charts, tables, and graphs</li> </ul>	<p>situations</p>
<p><b>How you can help</b></p>	<ul style="list-style-type: none"> <li>• Encourage your child to show all steps his/her work when solving problems, even when using a calculator</li> <li>• Encourage your child to use the online textbook resources and tutorial</li> <li>• Discuss vocabulary words and their meanings</li> <li>• Ask students to explain the procedure he/she used in each problem</li> <li>• Practice basic math facts</li> <li>• Monitor homework and your child's grades online</li> </ul>			