

## 6<sup>th</sup> Grade Mathematics Curriculum Year-At-A-Glance

Unit 1: Decimals	Unit 2: Division of Fractions	Unit 3: Rational Numbers	Unit 4: Coordinate Plane	Unit 5: Algebraic Expressions
<p><b>Essential Standard</b> 6_M_1 Students will understand, apply and perform operations with rational numbers to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_1_A Fluently multiply multi-digit decimals using the standard algorithm. (R) (6.NS.3)</li> <li>6_M_1_B Fluently divide multi-digit decimals using the standard algorithm. (R) (6.NS.3)</li> </ul>	<p><b>Essential Standard</b> 6_M_1 Students will understand, apply and perform operations with rational numbers to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_1_C Interpret, compute, and justify quotients of fractions. (R) (6.NS.1)</li> <li>6_M_1_D Solve word problems involving division of fractions by fractions. (R) (6.NS.1)</li> </ul>	<p><b>Essential Standard</b> 6_M_2 Students will develop, understand, and apply numerical and algebraic concepts to solve real-world and mathematical problems.</p> <p>6_M_1 Students will understand, apply and perform operations with rational numbers to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_2_G Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. (K) (6.NS.5)</li> <li>6_M_1_M Understand a rational number as a point on the number line. (R) (6.NS.6)</li> <li>6_M_2_H Understand ordering and absolute value of rational numbers. (R) (6.NS.7)</li> </ul>	<p><b>Essential Standard</b> 6_M_3 Students will understand and apply geometric concepts to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_3_A Graph pairs of integers and other rational numbers on a coordinate plane. (R) (6.NS.6)</li> <li>6_M_3_B Use coordinates to find the distance between two points on a coordinate plane. (R) (6.NS.8)</li> <li>6_M_3_C Solve real-world and mathematical problems from points graphed on a coordinate plane. (R) (6.NS.8)</li> <li>6_M_3_D Draw polygons in the coordinate plane given the coordinates of the vertices and find the length of the sides to solve real-world problems. (R) (6.G.3)</li> </ul>	<p><b>Essential Standard</b> 6_M_1 Students will understand, apply and perform operations with rational numbers to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_1_H Use the distributive property to express the sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. (R) (6.NS.4)</li> <li>6_M_1_I Write and evaluate numerical expressions involving whole-number exponents. (R) (6.EE.1)</li> <li>6_M_1_J Write, read, and evaluate expressions in which letters stand for numbers. (R) (6.EE.2)</li> <li>6_M_1_K Apply properties of operations to generate equivalent expressions, e.g., <math>24x + 18y = 6(4x + 3y)</math>. (R) (6.EE.3)</li> <li>6_M_1_L Identify when two expressions are equivalent. (R) (6.EE.4)</li> </ul>
Unit 6: Algebraic Equations and Inequalities	Unit 7: Ratio and Proportional Reasoning	Unit 8: Statistics	Unit 9: Geometry	
<p><b>Essential Standard</b> 6_M_2 Students will develop, understand, and apply numerical and algebraic concepts to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_2_A Understand the process of solving an algebraic equation or inequality. (R) (6.EE.5)</li> <li>6_M_2_B Understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. (K) (6.EE.6)</li> <li>6_M_2_C Write and solve equations of the form <math>x + p = q</math> and <math>px = q</math> for cases in which <math>p</math>, <math>q</math>, and <math>x</math> are all nonnegative rational numbers. (R) (6.EE.7)</li> <li>6_M_2_D Write a simple inequality (<math>x &gt; c</math> or <math>x &lt; c</math>) to represent the constraints or conditions of the numerical values in a real-world or mathematical problem. (R) (6.EE.8)</li> <li>6_M_2_E Write an algebraic equation that represents the relationship between two variables. (R) (6.EE.9)</li> <li>6_M_2_F Analyze the relationship between the two variables using graphs and tables, and relate this relationship to an equation (constant and varying rates of change). (R) (6.EE.9)</li> </ul>	<p><b>Essential Standard</b> 6_M_1 Students will understand, apply and perform operations with rational numbers to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_1_E Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. (R) (6.RP.1)</li> <li>6_M_1_F Understand the concept of a unit rate and use rate language in the context of a ratio relationship. (R) (6.RP.2)</li> <li>6_M_1_G Use ratio and rate reasoning to solve problems. (R) (6.RP.3)</li> </ul>	<p><b>Essential Standard</b> 6_M_4 Students will understand statistical data to illustrate and interpret one-variable data.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_4_A Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. (R) (6.SP.1)</li> <li>6_M_4_B Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center and spread. (K) (6.SP.2)</li> <li>6_M_4_C Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number. (K) (6.SP.3)</li> <li>6_M_4_D Display numerical data (including units in fractions) in plots on a number line, including dot plots (line plots). (R) (6.SP.4)</li> <li>6_M_4_E Summarize numerical data sets. (R) (6.SP.5.a,b,c)</li> </ul>	<p><b>Essential Standard</b> 6_M_3 Students will understand and apply geometric concepts to solve real-world and mathematical problems.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>6_M_3_E Find the area of right triangles, other triangles, special quadrilaterals and polygons by composing into rectangles or decomposing into triangles and other shapes. (R) (6.G.1)</li> <li>6_M_3_F Apply the formula <math>V = lwh</math> and <math>V = Bh</math> to find volumes of right rectangular prisms with fractional edge lengths. (R) (6.G.2)</li> <li>6_M_3_G Represent three-dimensional figures using nets made up of rectangles and triangles and use the nets to find the surface area. (R) (6.G.4)</li> </ul>	