

### 3<sup>rd</sup> Grade Mathematics Curriculum Year-At-A-Glance

Unit 1: Number and Operations in Base Ten	Unit 2: Collecting and Analyzing Data	Unit 3: Multiplication	Unit 4: Telling Time
<p><b>Essential Standard</b> 3_M_1: Students will understand, analyze, and extend the properties of the base-ten number system.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_1_A: Use place value and number line understanding to round whole numbers to the nearest ten or hundred. (R) (3.NBT.1)</li> <li>3_M_1_B: Identify and describe arithmetic patterns in number charts, addition tables, and multiplication tables. (R) (3.OA.9)</li> <li>3_M_1_C: Explain arithmetic patterns using properties of operations. (R) (3.OA.9)</li> <li>3_M_1_D: Efficiently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. (R) (3.NBT.2)</li> <li>3_M_1_E: Solve two-step word problems involving addition and subtraction and check the reasonableness of the answer using mental computation and estimation strategies including rounding. (R) (3.OA.8)</li> <li>3_M_1_F: Use a variable to write an equation to represent an unknown quantity. (R) (3.OA.8)</li> </ul>	<p><b>Essential Standard</b> 3_M_2: Students will identify and apply concepts of measurement and data.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_2_A: Draw a scaled picture graph to represent a data set with several categories. (R) (3.MD.3)</li> <li>3_M_2_B: Draw a scaled bar graph to represent a data set with several categories. (R) (3.MD.3)</li> <li>3_M_2_C: Read and interpret scaled bar graphs and scaled picture graphs to solve one and two-step addition and subtraction problems. (R) (3.MD.3)</li> </ul>	<p><b>Essential Standard</b> 3_M_3: Students will understand, analyze, solve problems, and explain patterns in multiplication and division.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_3_A: Use addition to find the total number of objects arranged in rectangular arrays with up to five rows and up to five columns; write an equation to express the total as a sum of equal addends. (K) (2.OA.4)</li> <li>3_M_3_B: Interpret, model, and explain products of whole numbers using skip counting, arrays, counters, repeated addition, and groups of statements. (R) (3.OA.1)</li> <li>3_M_3_C: Interpret a multiplication equation as a comparison and represent verbal statements of multiplicative comparisons as multiplication equations. (R) (4.OA.1)</li> <li>3_M_3_D: Explain and apply the properties of operations (commutative, associative, and distributive) as strategies to multiply and divide. (R) (3.OA.5)</li> <li>3_M_3_E: Multiply one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations. (R) (3.NBT.3)</li> </ul>	<p><b>Essential Standard</b> 3_M_2: Students will identify and apply concepts of measurement and data.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_2_M: Tell and write time to the nearest minute. (K) (3.MD.1)</li> <li>3_M_2_N: Measure time intervals in minutes including solving word problems involving addition and subtraction of time intervals. (R) (3.MD.1)</li> </ul>
Unit 5: Division	Unit 6: Attributes of Geometric Shapes	Unit 7: Representing and Comparing Fractions	Unit 8: Area and Perimeter
<p><b>Essential Standard</b> 3_M_3: Students will understand, analyze, solve problems, and explain patterns in multiplication and division.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_3_F: Understand division as an unknown factor problem. (R) (3.OA.6)</li> <li>3_M_3_G: Multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. (R) (3.OA.7)</li> <li>3_M_3_H: Interpret whole number quotients as the number of objects in each share or as the number of shares. (R) (3.OA.2)</li> <li>3_M_3_I: Determine the unknown whole number in a multiplication or division equation. (R) (3.OA.4)</li> <li>3_M_3_J: Determine when to multiply and divide (within 100) to solve word problems involving equal groups, arrays, and measurement quantities. (R) (3.OA.3)</li> <li>3_M_3_K: Solve two-step word problems using multiplication and division. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (R) (3.OA.8)</li> </ul>	<p><b>Essential Standard</b> 3_M_5: Students will recognize, compare, analyze, and describe geometric shapes.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_5_A: Use attributes to identify polygons and classify them into categories. (K) (3.G.1)</li> <li>3_M_5_B: Define, identify, and draw quadrilaterals according to their attributes. (K) (3.G.1)</li> </ul>	<p><b>Essential Standard</b> 3_M_4: Students will understand, recognize, and compare fractions (limited to fractions with denominators 2, 3, 4, 6, and 8).</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_4_A: Read, write, and explain any unit fraction (<math>1/b</math>) as one part of a whole. (K) (3.NF.1)</li> <li>3_M_4_B: Identify and explain that the numerator is the number of parts being discussed, and that the denominator is the total number of equal parts in the whole. (R) (3.NF.1)</li> <li>3_M_4_C: Divide shapes into parts with equal areas and name the area of each part as a unit fraction of the whole. (R) (3.G.2)</li> <li>3_M_4_D: Represent a unit fraction (<math>1/b</math>) or any fraction (<math>a/b</math>) on a number line between 0 to 1 (the whole) divided into <math>b</math> equal parts. (R) (3.NF.2a/b)</li> <li>3_M_4_E: Understand and generate simple equivalent fractions and explain why the fractions are equal. (R) (3.NF.3a/b)</li> <li>3_M_4_F: Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. (R) (3.NF.3c)</li> <li>3_M_4_G: Compare fractions using models, pictures, and symbols. (R) (3.NF.3d)</li> </ul>	<p><b>Essential Standard</b> 3_M_2: Students will identify and apply concepts of measurement and data.</p> <p><b>Learning Targets</b></p> <ul style="list-style-type: none"> <li>3_M_2_D: Find the perimeter of a polygon when given the lengths of all sides and find an unknown side length when the perimeter is given. (R) (3.MD.8)</li> <li>3_M_2_E: Define area as the measure of space with a plane figure and explain why area is measured in square units. (K) (3.MD.5a/b)</li> <li>3_M_2_F: Partition a rectangle into rows and columns of the same-size squares and measure area by counting the unit squares (square cm, square m, square in, square ft, and improvised units). (R) (3.MD.6/2.G.2)</li> <li>3_M_2_G: Find the area of a rectangle with whole number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. (R) (3.MD.7a)</li> <li>3_M_2_H: Multiply whole number side lengths to find areas of rectangles in the context of problem solving. (R) (3.MD.7b)</li> <li>3_M_2_I: Represent the distributive property by finding the area of a rectangle that is subdivided into two rectangles. (R) (3.MD.7c)</li> <li>3_M_2_J: Decompose a rectilinear figure into non-overlapping rectangles and find the area of the parts in order to find the area of the original figure. (R) (3.MD.7d)</li> <li>3_M_2_K: Solve word problems involving perimeter and area. (R) (3.MD.8/4.MD.3)</li> <li>3_M_2_L: Show how rectangles with the same area have different perimeters and how rectangles with the same perimeter have different areas. (R) (3.MD.8)</li> </ul>

**Grade Level Expectation: By the end of Grade 3 students should know from memory all products of two one-digit numbers. (3.OA.7)**