

## 4th Grade Math Essential Standards and Learning Targets

<b>Essential Standards</b>				
<p><b>4_M_1</b> Students will understand, extend, analyze, and apply the properties of the base-ten number system.</p>	<p><b>4_M_2</b> Students will understand and apply the properties of the four operations and determine the relationship between them to solve problems with whole numbers.</p>	<p><b>4_M_3</b> Students will demonstrate an understanding of fractions and decimals (grade 4 expectations in this standard are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100).</p>	<p><b>4_M_4</b> Students will understand and apply concepts of measurement.</p>	<p><b>4_M_5</b> Students will draw and identify lines and angles to classify shapes.</p>
<b>Learning Targets</b>				
<ul style="list-style-type: none"> <li>● 4_M_1_A: Understand that in a multi-digit whole number, a digit represents 10 times what it would represent in the place to its right. (MLS-4.NBT.A.4) (CCSS-4.NBT.1)</li> <li>● 4_M_1_B: Read, write and identify multi-digit whole numbers up to one million using number names, base ten numerals and expanded form. (MLS-4.NBT.A.2) (CCSS-4.NBT.2)</li> <li>● 4_M_1_C: Compare two multi-digit numbers using the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the solution. (MLS-4.NBT.A.3) (CCSS-4.NBT.2)</li> <li>● 4_M_1_D: Round multi-digit whole numbers to any place. (MLS-4.NBT.A.1) (CCSS-4.NBT.3)</li> </ul>	<ul style="list-style-type: none"> <li>● 4_M_2_A: Demonstrate fluency with addition of whole numbers. (MLS-4.NBT.A.5) (CCSS-4.NBT.4)</li> <li>● 4_M_2_B: Demonstrate fluency with subtraction of whole numbers. (MLS-4.NBT.A.5) (CCSS-4.NBT.4)</li> <li>● 4_M_2_C: Solve multi-step whole number problems involving the four operations and variables and using estimation to interpret the reasonableness of the answer. (MLS-4.RA.A.2) (CCSS-4.OA.3)</li> <li>● 4_M_2_D: Multiply or divide to solve problems involving a multiplicative comparison. (MLS-4.RA.A.1) (CCSS-4.OA.1/4.OA.2)</li> <li>● 4_M_2_E: Multiply a whole number of up to four digits by a one-digit whole number and multiply two two-digit numbers, and justify the solution. (MLS-4.NBT.A.6) (CCSS-4.NBT.5)</li> <li>● 4_M_2_F: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, and justify the solution. (MLS-4.NBT.A.7) (CCSS-4.NBT.6)</li> <li>● 4_M_2_G: Solve whole number division problems involving variables in which remainders need to be interpreted, and justify the solution. (MLS-4.RA.A.3) (CCSS-4.OA.3)</li> <li>● 4_M_2_H: Recognize that a whole number is a multiple of each of its factors and find the multiples for a given whole number. (MLS-4.RA.B.4) (CCSS-4.OA.4)</li> <li>● 4_M_2_I: Determine if a whole number within 100 is composite or prime, and find all factor pairs for whole numbers within 100. (MLS-4.RA.B.5) (CCSS-4.OA.4)</li> </ul>	<ul style="list-style-type: none"> <li>● 4_M_3_A: Decompose a fraction into a sum of fractions with the same denominator and record each decomposition with an equation and justification. (MLS-4.NF.B.5) (CCSS-4.NF.3b)</li> <li>● 4_M_3_B: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. (MLS-4.NF.B.7) (CCSS-4.NF.4a/b)</li> <li>● 4_M_3_C: Explain and/or illustrate why two fractions are equivalent. (MLS-4.NF.A.1) (CCSS-4.NF.1)</li> <li>● 4_M_3_D: Recognize and generate equivalent fractions. (MLS-4.NF.A.2) (CCSS-4.NF.1)</li> <li>● 4_M_3_E: Compare two fractions using the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the solution. (MLS-4.NF.A.3) (CCSS-4.NF.2)</li> <li>● 4_M_3_F: Understand addition and subtraction of fractions as joining/composing and separating/decomposing parts referring to the same whole. (MLS-4.NF.B.4) (CCSS-4.NF.3a)</li> <li>● 4_M_3_G: Create a frequency table and/or line plot to display measurement data. (MLS-4.DS.A.1) (CCSS-4.MD.4)</li> <li>● 4_M_3_H: Analyze the data in a frequency table, line plot, bar graph or picture graph. (MLS-4.DS.A.3) (CCSS-4.MD.4)</li> <li>● 4_M_3_I: Solve problems involving addition and subtraction by using information presented in a data display. (MLS-4.DS.A.2) (CCSS-4.MD.4)</li> <li>● 4_M_3_J: Solve problems involving adding and subtracting fractions and mixed numbers with like denominators. (MLS-4.NF.B.6) (CCSS-4.NF.3c)</li> <li>● 4_M_3_K: Solve problems involving multiplication of a fraction by a whole number. (MLS-4.NF.B.8) (CCSS-4.NF.4c)</li> <li>● 4_M_3_L: Generate a number pattern that follows a given rule. (MLS-4.RA.C.6) (CCSS-4.OA.5)</li> <li>● 4_M_3_M: Use words or mathematical symbols to express a rule for a given pattern. (S-4.RA.C.7) (CCSS-4.OA.5)</li> <li>● 4_M_3_N: Use decimal notation for fractions with denominators of 10 or 100. (MLS-4.NF.C.9) (CCSS-4.NF.6)</li> <li>● 4_M_3_O: Understand that fractions and decimals are equivalent representations of the same quantity. (MLS-4.NF.C.10) (CCSS-4.NF.6)</li> <li>● 4_M_3_P: Read, write, and identify decimals to the hundredths place using number names, base ten numerals and expanded form. (MLS-4.NF.C.11) (CCSS-4.NF.6)</li> <li>● 4_M_3_Q: Compare two decimals to the hundredths place using the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the solution. (MLS-4.NF.C.12) (CCSS-4.NF.7)</li> </ul>	<ul style="list-style-type: none"> <li>● 4_M_4_A: Know relative sizes of measurement units within one system of units. (MLS-4.GM.C.6) (CCSS-4.MD.1) <ul style="list-style-type: none"> <li>a. Convert measurements in a larger unit in terms of a smaller unit.</li> </ul> </li> <li>● 4_M_4_B: Use the four operations to solve problems involving distances, intervals of time, liquid volume, weight of objects, length and money. (MLS-4.GM.C.7) (CCSS-4.MD.2)</li> <li>● 4_M_4_C: Apply the area and perimeter formulas for rectangles to solve problems. (S-4.GM.C.8) (CCSS-4.MD.3)</li> </ul>	<ul style="list-style-type: none"> <li>● 4_M_5_A: Draw and identify points, lines, line segments, rays, angles, perpendicular lines and parallel lines. (MLS-4.GM.A.1) (CCSS-4.G.1)</li> <li>● 4_M_5_B: Identify and estimate angles and their measure. (MLS-4.GM.B.4) (CCSS-4.MD.5)</li> <li>● 4_M_5_C: Draw and measure angles in whole-number degrees using a protractor. (MLS-4.GM.B.5) (CCSS-4.MD.6)</li> <li>● 4_M_5_D: Classify two-dimensional shapes by their sides and/or angles. (MLS-4.GM.A.2) (CCSS-4.G.2)</li> <li>● 4_M_5_E: Construct lines of symmetry for a two-dimensional figure. (MLS-4.GM.A.3) (CCSS-4.G.3)</li> </ul>