

Scope and Sequence:

<u>Order of Instruction:</u>	<u>Topic/Skills to be Taught:</u>	<u>Standards and Eligible Content:</u>
1	Place Value <ul style="list-style-type: none"> <li>● Place Value</li> <li>● Read and Write Multi-Digit Numbers</li> <li>● Compare Numbers</li> <li>● Order Numbers</li> <li>● Use Place Value to Round</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.1.4.B.1 - Apply place-value concepts to show an understanding of multi-digit whole numbers.</b></p> <p>M04.A-T.1.1 Apply place-value and numeration concepts to compare, find equivalencies, and round.</p> <p><b>M04.A-T.1.1.1</b> Demonstrate an understanding that in a multi-digit whole number (through 1,000,000), a digit in one place represents ten times what it represents in the place to its right.</p> <p><b>M04.A-T.1.1.2</b> Read and write whole numbers in expanded, standard, and word form through 1,000,000.</p> <p><b>M04.A-T.1.1.3</b> Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using &gt;, =, and &lt; symbols.</p> <p><b>M04.A-T.1.1.4</b> Round multi-digit whole numbers (through 1,000,000) to any place.</p>
2	Add and Subtract Whole Numbers <ul style="list-style-type: none"> <li>● Addition Properties and Subtraction Rules</li> <li>● Addition and Subtraction Patterns</li> <li>● Add and Subtract Mentally</li> <li>● Estimate Sums and Differences</li> <li>● Add Whole Numbers</li> <li>● Subtract Whole Numbers</li> <li>● Subtract Across Zeros</li> <li>● Solve Multi-Step Word Problems</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.1.4.B.2 - Use place value understanding and properties of operations to perform multi-digit arithmetic.</b></p> <p>M04.A-T.2.1 Use operations to solve problems.</p> <p><b>M04.A-T.2.1.1</b> Add and subtract multi-digit whole numbers (limit sums and subtrahends up to and including 1,000,000).</p> <p><b>M04.A-T.2.1.4</b> Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).</p>
<u>Order of Instruction:</u>	<u>Topic/Skills to be Taught:</u>	<u>Standards and Eligible Content:</u>
3	Understand Multiplication and Division <ul style="list-style-type: none"> <li>● Relate Multiplication and Division</li> <li>● Relate Division and Subtractions</li> </ul>	<p><b>CC.2.2.4.A.1 - Represent and solve problems involving the four operations.</b></p> <p>M04.B-O.1.1 Use numbers and symbols to model the concepts of expressions and equations.</p>

	<ul style="list-style-type: none"> <li>● Multiplication as Comparison</li> <li>● Compare to Solve Problems</li> <li>● Multiplication Properties and Division Rules</li> <li>● The Associative Property of Multiplications</li> <li>● Factors and Multiples</li> <li>● Problem Solving</li> </ul>	<p><b>M04.B-O.1.1.1</b> Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. Example 1: Interpret <math>35 = 5 \times 7</math> as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Example 2: Know that the statement 24 is 3 times as many as 8 can be represented by the equation <math>24 = 3 \times 8</math> or <math>24 = 8 \times 3</math>.</p> <p><b>M04.B-O.1.1.2</b> Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. Example: Know that <math>3 \times 4</math> can be used to represent that Student A has 4 objects and Student B has 3 times as many objects not just 3 more objects.</p> <p><b>M04.B-O.1.1.3</b> Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity. <b>M04.B-O.1.1.4</b> Identify the missing symbol (+, -, ×, ÷, =, &lt;, and &gt;) that makes a number sentence true (single-digit divisor only).</p> <p><b>CC.2.1.4.B.2 - Use place value understanding and properties of operations to perform multi-digit arithmetic.</b></p> <p>M04.A-T.2.1 Use operations to solve problems.</p> <p><b>M04.A-T.2.1.2</b> Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers.</p> <p><b>M04.A-T.2.1.3</b> Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders. <b>M04.A-T.2.1.4</b> Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).</p>
<p><b><u>Order of Instruction:</u></b></p>	<p><b><u>Topic/Skills to be Taught:</u></b></p>	<p><b><u>Standards and Eligible Content:</u></b></p>
<p>4</p>	<p>Multiply with One-Digit Numbers</p> <ul style="list-style-type: none"> <li>● Multiples of 10, 100 and 1000</li> <li>● Round to Estimate Products</li> <li>● Use Place Value to Multiply</li> </ul>	<p><b>CC.2.1.4.B.2 - Use place value understanding and properties of operations to perform multi-digit arithmetic.</b></p> <p>M04.A-T.2.1 Use operations to solve problems.</p>

	<ul style="list-style-type: none"> <li>● Use Models to Multiply</li> <li>● Multiply by a Two-Digit Number</li> <li>● Model Regrouping</li> <li>● The Distributive Property</li> <li>● Multiply with Regrouping</li> <li>● Multiply a Multi-Digit Number</li> <li>● Multiply Across Zeros</li> <li>● Problem Solving</li> </ul>	<p><b>M04.A-T.2.1.2</b> Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit number</p> <p><b>M04.A-T.2.1.4</b> Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).</p>
5	<p>Multiply with Two-Digit Numbers</p> <ul style="list-style-type: none"> <li>● Multiply by Tens</li> <li>● Estimate Products</li> <li>● Use the Distributive Property to Multiply</li> <li>● Multiply by a Two-Digit Number</li> <li>● Solve Multi-Step Word Problems</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.1.4.B.2 - Use place value understanding and properties of operations to perform multi-digit arithmetic.</b> M04.A-T.2.1</p> <p>Use operations to solve problems.</p> <p><b>M04.A-T.2.1.2</b> Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit number</p> <p><b>M04.A-T.2.1.4</b> Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).</p>
<b><u>Order of Instruction:</u></b>	<b><u>Topic/Skills to be Taught:</u></b>	<b><u>Standards and Eligible Content:</u></b>
6	<p>Divide by One-Digit Numbers</p> <ul style="list-style-type: none"> <li>● Divide Multiples of 10, 100 and 1,000</li> <li>● Estimate Quotients</li> <li>● Use Place Value to Divide</li> <li>● Divide with Remainders</li> <li>● Interpret Remainders</li> <li>● Place the First Digit</li> <li>● Distributive Property and Partial Quotients</li> <li>● Divide Greater Numbers</li> <li>● Quotients with Zeros</li> <li>● Solve Multi-Step Word Problems</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.1.4.B.2 - Use place value understanding and properties of operations to perform multi-digit arithmetic.</b></p> <p>M04.A-T.2.1 Use operations to solve problems.</p> <p><b>M04.A-T.2.1.3</b> Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders.</p> <p><b>M04.A-T.2.1.4</b> Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits (for multiplication, no more than 2 digits × 1 digit, excluding powers of 10).</p>
7	<p>Patterns and Sequences</p> <ul style="list-style-type: none"> <li>● Nonnumeric Patterns</li> </ul>	<p><b>CC.2.2.4.A.4 -Generate and analyze patterns using one rule.</b> M04.B-O.3.1</p> <p>Recognize, describe, extend, create, and replicate a variety of patterns.</p>

	<ul style="list-style-type: none"> <li>● Numeric Patterns</li> <li>● Sequences</li> <li>● Addition and Subtraction Rules</li> <li>● Multiplication and Division Rules</li> <li>● Order of Operations</li> <li>● Equations with Two Operations</li> <li>● Equations with Multiple Operations</li> <li>● Problem Solving</li> </ul>	<p><b>M04.B-O.3.1.1</b> Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.</p> <p><b>M04.B-O.3.1.2</b> Determine the missing elements in a function table (limit to +, −, or × and to whole numbers or money).</p> <p><b>M04.B-O.3.1.3</b> Determine the rule for a function given a table (limit to +, −, or × and to whole numbers).</p>
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<u>Order of Instruction:</u>	<u>Topic/Skills to be Taught:</u>	<u>Standards and Eligible Content:</u>
8	Fractions <ul style="list-style-type: none"> <li>● Factors and Multiples</li> <li>● Prime and Composite Numbers</li> <li>● Model Equivalent Fractions</li> <li>● Equivalent Fractions</li> <li>● Simplest Form</li> <li>● Compare and Order Fractions</li> <li>● Use Benchmark Fractions to Compare and Order</li> <li>● Mixed Numbers</li> <li>● Mixed Numbers and Improper Fractions</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.1.4.C.1 - Extend the understanding of fractions to show equivalence and ordering.</b></p> <p>M04.A-F.1.1 Find equivalencies and compare fractions.</p> <p><b>M04.A-F.1.1.1</b> Recognize and generate equivalent fractions.</p> <p><b>M04.A-F.1.1.2</b> Compare two fractions with different numerators and different denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100) using the symbols &gt;, =, or &lt; and justify the conclusions.</p> <p><b>CC.2.2.4.A.2 - Develop and/or apply number theory concepts to find factors and multiples.</b></p> <p><b>M04.B-O.2.1.1</b> Find all factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the interval 1 through 100 is a multiple of a given one-digit number. Determine whether a given whole number in the interval 1 through 100 is prime or composite.</p>
<u>Order of Instruction:</u>	<u>Topic/Skills to be Taught:</u>	<u>Standards and Eligible Content:</u>
9	Operations with Fractions <ul style="list-style-type: none"> <li>● Use Models to Add Like Fractions</li> <li>● Add Like Fractions</li> <li>● Use Models to Subtract Like Fractions</li> </ul>	<p><b>CC.2.1.4.C.2 - Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</b></p> <p>M04.A-F.2.1 Solve problems involving fractions and whole numbers (straight computation or word problems).</p>

	<ul style="list-style-type: none"> <li>● Subtract Like Fractions</li> <li>● Add Mixed Numbers</li> <li>● Subtract Mixed Numbers</li> <li>● Model Fractions and Multiplication</li> <li>● Multiply Fractions by Whole Numbers</li> <li>● Problem Solving</li> </ul>	<p><b>M04.A-F.2.1.1</b> Add and subtract fractions with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; answers do not need to be simplified; and no improper fractions as the final answer).</p> <p><b>M04.A-F.2.1.2</b> Decompose a fraction or a mixed number into a sum of fractions with the same denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100), recording the decomposition by an equation. Justify decompositions (e.g., by using a visual fraction model). <b>M04.A-F.2.1.3</b> Add and subtract mixed numbers with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; no regrouping with subtraction; fractions do not need to be simplified; and no improper fractions as the final answers).</p> <p><b>M04.A-F.2.1.4</b> Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100)</p> <p><b>M04.A-F.2.1.5</b> Multiply a whole number by a unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number).</p> <p><b>M04.A-F.2.1.6</b> Multiply a whole number by a non-unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number).</p> <p><b>M04.A-F.2.1.7</b> Solve word problems involving multiplication of a whole number by a fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).</p>
<p><b><u>Order of Instruction:</u></b></p>	<p><b><u>Topic/Skills to be Taught:</u></b></p>	<p><b><u>Standards and Eligible Content:</u></b></p>
<p>10</p>	<p>Fractions and Decimals</p> <ul style="list-style-type: none"> <li>● Place Value Through Tenths and Hundredths</li> <li>● Tenths</li> <li>● Hundredths</li> <li>● Model Decimals and Fractions</li> <li>● Decimals and Fractions</li> <li>● Use Place Value and Models to Add</li> <li>● Compare and Order Decimals</li> </ul>	<p><b>CC.2.1.4.C.3 - Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g. 19/100)</b></p> <p>M04.A-F.3.1 Use operations to solve problems involving decimals, including converting between fractions and decimals (may include word problems).</p> <p><b>M04.A-F.3.1.1</b> Add two fractions with respective denominators 10 and 100.</p> <p><b>M04.A-F.3.1.2</b> Use decimal notation for fractions with denominators 10 or 100.</p>

	<ul style="list-style-type: none"> <li>● Problem Solving</li> </ul>	<p><b>M04.A-F.3.1.3</b> Compare two decimals to hundredths using the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions.</p>
11	<p>Customary Measurement</p> <ul style="list-style-type: none"> <li>● Customary Units of Length</li> <li>● Convert Customary Units of Length</li> <li>● Customary Units of Capacity</li> <li>● Convert Customary Units of Capacity</li> <li>● Customary Units of Weight</li> <li>● Convert Customary Units of Weight</li> <li>● Convert Units of Time</li> <li>● Display Measurement Data in a Line Plot</li> <li>● Solve Measurement Problems</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.4.4.A.1 - Solve problems involving measurement and conversions from a larger unit to a smaller unit.</b></p> <p><b>M04.D-M.1.1.1</b> Know relative sizes of measurement units within one system of units including standard units (in., ft, yd, mi; oz., lb; and c, pt, qt, gal), metric units (cm, m, km; g, kg; and mL, L), and time (sec, min, hr, day, wk, mo, and yr). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. A table of equivalencies will be provided.</p> <p><b>M04.D-M.1.1.2</b> Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.</p> <p><b>M04.D-M.1.1.4</b> Identify time (analog or digital) as the amount of minutes before or after the hour.</p>
<b><u>Order of Instruction:</u></b>	<b><u>Topic/Skills to be Taught:</u></b>	<b><u>Standards and Eligible Content:</u></b>
12	<p>Metric Measurement</p> <ul style="list-style-type: none"> <li>● Metric Units of Length</li> <li>● Metric Units of Capacity</li> <li>● Metric Units of Mass</li> <li>● Convert Metric Units</li> <li>● Solve Measurement Problems</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.4.4.A.1 - Solve problems involving measurement and conversions from a larger unit to a smaller unit.</b></p> <p>M04.D-M.1.1 Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.</p> <p><b>M04.D-M.1.1.1</b> Know relative sizes of measurement units within one system of units including standard units (in., ft, yd, mi; oz., lb; and c, pt, qt, gal), metric units (cm, m, km; g, kg; and mL, L), and time (sec, min, hr, day, wk, mo, and yr). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. A table of equivalencies will be provided.</p> <p><b>M04.D-M.1.1.2</b> Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or</p>

		decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.
13	<p>Graphing Data</p> <ul style="list-style-type: none"> <li>● Line Plots</li> <li>● Tables</li> <li>● Bar Graphs</li> <li>● Pictographs</li> <li>● Interpreting Data</li> <li>● Creating Graphs</li> </ul>	<p><b>CC.2.4.4.A.2 - Translate information from one type of data display to another.</b></p> <p><b>CC.2.4.4.A.4 - Represent and interpret data involving fractions using information provided in a line plot</b></p> <p><b>M04.D-M.2.1</b> Organize, display, and answer questions based on data.</p> <p><b>M04.D-M.2.1.1:</b> Make a line plot to display a data set of measurements in fractions of a unit (e.g., intervals of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, or <math>\frac{1}{8}</math>).</p> <p><b>M04.D-M.2.1.2</b> Solve problems involving addition and subtraction of fractions by using information presented in line plots (line plots must be labeled with common denominators, such as <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math>, <math>\frac{3}{4}</math>).</p> <p><b>M04.D-M.2.1.3</b> Translate information from one type of display to another (table, chart, bar graph, or pictograph).</p>
<b><u>Order of Instruction:</u></b>	<b><u>Topic/Skills to be Taught:</u></b>	<b><u>Standards and Eligible Content:</u></b>
14	<p>Perimeter and Area</p> <ul style="list-style-type: none"> <li>● Measure Perimeter</li> <li>● Model Area</li> <li>● Measure Area</li> <li>● Relate Area and Perimeter</li> <li>● Problem Solving</li> </ul>	<p><b>CC.2.4.4.A.1 - Solve problems involving measurement and conversions from a larger unit to a smaller unit.</b></p> <p><b>M04.D-M.1.1</b> Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.</p> <p><b>M04.D-M.1.1.3</b> Apply the area and perimeter formulas for rectangles in real-world and mathematical problems (may include finding a missing side length). Whole numbers only. The formulas will be provide.</p>
<b><u>Order of Instruction:</u></b>	<b><u>Topic/Skills to be Taught:</u></b>	<b><u>Standards and Eligible Content:</u></b>
15	<p>Geometry</p> <ul style="list-style-type: none"> <li>● Draw Points, Lines and Rays</li> <li>● Draw Parallel and Perpendicular Lines</li> <li>● Model Angles</li> <li>● Classify Angles</li> <li>● Measure Angles</li> </ul>	<p><b>CC.2.3.4.A.1 - Draw lines and angles and identify these in two-dimensional figures.</b></p> <p><b>CC.2.3.4.A.2 - Classify two-dimensional figures by properties of their lines and angles.</b></p> <p><b>CC.2.3.4.A.3 - Recognize symmetric shapes and draw lines of symmetry.</b></p>

	<ul style="list-style-type: none"> <li>● Draw Angles</li> <li>● Solve Problems with Angles</li> <li>● Triangles</li> <li>● Quadrilaterals</li> <li>● Draw Lines of Symmetry</li> <li>● Problem Solving</li> </ul>	<p>M04.C-G.1.1 List properties, classify, draw, and identify geometric figures in two dimensions.</p> <p><b>M04.C-G.1.1.1</b> Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two dimensional figures.</p> <p><b>M04.C-G.1.1.2</b> Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.</p> <p><b>M04.C-G.1.1.3</b> Recognize a line of symmetry for a two dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts. Identify line-symmetric figures and draw lines of symmetry (up to two lines of symmetry).</p> <p><b>CC.2.4.4.A.6 - Measure angles and use properties of adjacent angles to solve problems.</b></p> <p>M04.D-M.3.1 Use appropriate tools and units to sketch an angle and determine angles measurements.</p> <p><b>M04.D-M.3.1.1</b> Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of specified measure.</p> <p><b>M04.D-M.3.1.2</b> Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems. (Angles must be adjacent and non-overlapping.)</p>
<p><b><u>Order of Instruction:</u></b></p>	<p><b><u>Topic/Skills to be Taught:</u></b></p>	<p><b><u>Standards and Eligible Content:</u></b></p>
<p>16</p>	<p>Bridging to 5th Grade</p> <ul style="list-style-type: none"> <li>● Multiplication and Division</li> <li>● Fractions and Decimals</li> </ul>	<p><b>CC.2.1.5.B.1 - Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals.</b></p> <p><b>CC.2.1.5.C.1 - Use the understanding of equivalency to add and subtract fractions.</b></p>