

# CURRICULUM MAP

Subject: MATH

Grade: 4<sup>TH</sup>

Quarter: 2<sup>ND</sup>

Teacher: 4<sup>th</sup> Grade

Month <hr style="width: 50%; margin: auto;"/>	WEEK 1 <hr style="width: 50%; margin: auto;"/>	WEEK 2 <hr style="width: 50%; margin: auto;"/>	WEEK 3 <hr style="width: 50%; margin: auto;"/>	WEEK 4 <hr style="width: 50%; margin: auto;"/>	WEEK 5 <hr style="width: 50%; margin: auto;"/>
<p><b>Concept (CCSS Standards)</b></p> <p><i>Italic Information: Recursive standard – repeated in at least one other quarter</i></p> <p><b>BOLD information: Standards that should be emphasized</b></p>	<p><i>4.OA.5 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. <b>DOK 1: A pattern is created with a number by adding 6 each time. Which of these number patterns follows that rule?</b></i></p> <p><b>DOK 2: Predict the next three numbers in the pattern using the rule add 3.</b></p> <p><b>DOK 3: Given the rule “multiply by 2” and the starting number 2, predict the first 5 terms in the pattern and identify features of those terms.</b></p> <p><b>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</b></p> <p><b>DOK 1: Solve: <math>124 \times 7 = \underline{\quad}</math>, <math>53 \times 25 = \underline{\quad}</math>, <math>2531 \times 4 = \underline{\quad}</math></b></p> <p><b>DOK 2: Find the product of <math>45 \times 23</math> (use a strategy other than the standard algorithm)</b></p> <p><b>Big Idea 1, Quarter 2: Students will develop flexibility in breaking numbers apart to have an understanding of the properties of operations and/or the relationship between multiplication and division.</b></p>	<p><b>4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</b></p> <p><b>DOK 1: Solve: <math>491 \div 7 = \underline{\quad}</math>. <math>6063 \div 9 = \underline{\quad}</math>.</b></p> <p><b>DOK 2: Jenny has 36 brownies. She would like to share them with her 6 friends. Which operation shows how many brownies each friend will receive?</b></p> <p><b>DOK 2: Henry had 491 baseball cards. He wanted to split them equally between his 5 friends. How many would each friend get, and is there a remainder?</b></p> <p><b>Big Idea 1, Quarter 2: flexibility in breaking numbers apart to have an understanding of the properties of operations and/or the relationship between multiplication and division.</b></p>	<p><b>4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor</b></p> <p><b>DOK 1: Find the area of a regular polygon with length and width given.</b></p> <p><b>DOK 2: The rectangular sign has an area of 32 in. The length of the sign is 8 in. How wide is the sign?</b></p> <p><b>DOK 3: Create 2 different polygons with an area of 64 in.</b></p> <p><b>Big Idea 1, Quarter 2: Students will develop flexibility in breaking numbers apart to have an understanding of the properties of operations and/or the relationship between multiplication and division.</b></p>	<p><i>4.OA.5 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. <b>DOK 1: A pattern is created with a number by adding 6 each time. Which of these number patterns follows that rule?</b></i></p> <p><b>DOK 2: Predict the next three numbers in the pattern using the rule add 3.</b></p> <p><b>DOK 3: Given the rule “multiply by 2” and the starting number 2, predict the first 5 terms in the pattern and identify features of those terms.</b></p> <p><b>4.NF.1 Explain why a fraction <math>a/b</math> is equivalent to a fraction <math>(n \times a)/(n \times b)</math> by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</b></p> <p><b>DOK 1: Name the equal parts of each figure. Shade in <math>1/6</math>. 4.NF.1</b></p> <p><b>DOK 2: Model two fractions that are equivalent to <math>1/2</math>.</b></p> <p><b>Look at the fractions below.</b></p> <p><math>1/2 = 2/4 = 6/12</math></p> <p><b>Which comparison of the fractions is true.</b></p> <p>a. <math>1/2 &gt; 2/4</math>  b. <math>2/4 &lt; 6/12</math>  c. <math>1/2 = 6/12</math>  d. <math>2/4 &gt; 1/2</math></p> <p><b>DOK 3: Explain how the two fractions are equivalent. <math>3/5 = 18/30</math></b></p>	<p><b>4.NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.<sup>4</sup> For example, express <math>3/10</math> as <math>30/100</math>, and add <math>3/10 + 4/100 = 34/100</math>.</b></p> <p><b>DOK 1: <math>3/10 = ?/100</math> (30)</b></p>

<b>Vocabulary</b>	<ul style="list-style-type: none"> <li>• Product</li> <li>• Quotient</li> <li>• Rule</li> <li>• Area</li> <li>• perimeter</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> <li>• Quotient</li> <li>• Rule</li> <li>• Area</li> <li>• perimeter</li> </ul>	<ul style="list-style-type: none"> <li>• Product</li> <li>• Quotient</li> <li>• Rule</li> <li>• Area</li> <li>• perimeter</li> </ul>	<ul style="list-style-type: none"> <li>• Fraction</li> <li>• equivalent</li> <li>• fractions</li> <li>• numerator</li> <li>• denominator</li> <li>• whole</li> <li>• part</li> <li>• number line</li> <li>• line plot</li> </ul>	<ul style="list-style-type: none"> <li>• Fraction</li> <li>• equivalent</li> <li>• fractions</li> <li>• numerator</li> <li>• denominator</li> <li>• whole</li> <li>• part</li> <li>• number line</li> <li>• line plot</li> </ul>
<b>Assessment Resources:</b>	<p><b>Resources &amp; Links to Technology</b></p> <p><a href="#">Support for 4.NBT.5</a> This site contains multiple sources and Web sites to support multiplication.</p> <p><a href="#">Support for 4.NBT.6</a> This site contains multiple sources and Web sites to support division.</p> <p><a href="#">Support for 4.MD.3</a> This site will support building ideas for perimeter and area in this grade.</p> <p><a href="#">Quotient Cafe</a> This is an application on finding quotients.</p> <p><a href="#">Math Playground</a> Tutorials and examples of key concepts</p>	<p><b>Resources &amp; Links to Technology</b></p> <p><a href="#">Support for 4.NBT.5</a> This site contains multiple sources and Web sites to support multiplication.</p> <p><a href="#">Support for 4.NBT.6</a> This site contains multiple sources and Web sites to support division.</p> <p><a href="#">Support for 4.MD.3</a> This site will support building ideas for perimeter and area in this grade.</p> <p><a href="#">Quotient Cafe</a> This is an application on finding quotients.</p> <p><a href="#">Math Playground</a> Tutorials and examples of key concepts</p>	<p><b>Resources &amp; Links to Technology</b></p> <p><a href="#">Support for 4.NBT.5</a> This site contains multiple sources and Web sites to support multiplication.</p> <p><a href="#">Support for 4.NBT.6</a> This site contains multiple sources and Web sites to support division.</p> <p><a href="#">Support for 4.MD.3</a> This site will support building ideas for perimeter and area in this grade.</p> <p><a href="#">Quotient Cafe</a> This is an application on finding quotients.</p> <p><a href="#">Math Playground</a> Tutorials and examples of key concepts</p>	<p><b>Resources &amp; Links to Technology</b></p> <p><a href="#">Illuminations: Equivalent Fractions</a></p> <p><a href="#">Finding Equivalent Fractions</a></p> <p><a href="#">Decimal Number Unit of Study</a></p> <p><a href="#">Another Online Fraction Strip</a> Interactive model that can be used to show equivalence</p> <p><a href="#">Fraction Models</a> Lessons that connect decimals and fractions</p>	<p><b>Resources &amp; Links to Technology</b></p> <p><a href="#">Illuminations: Equivalent Fractions</a></p> <p><a href="#">Finding Equivalent Fractions</a></p> <p><a href="#">Decimal Number Unit of Study</a></p> <p><a href="#">Another Online Fraction Strip</a> Interactive model that can be used to show equivalence</p> <p><a href="#">Fraction Models</a> Lessons that connect decimals and fractions</p>

<p><b>ESSENTIAL QUESTIONS</b></p>	<ul style="list-style-type: none"> <li>• How do you illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models</li> <li>• How do you multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations</li> <li>• What ways can students illustrate and explain their use of the multiplication/division properties?</li> </ul>	<ul style="list-style-type: none"> <li>• How do you illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models</li> <li>• How do you multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations</li> <li>• What ways can students illustrate and explain their use of the multiplication/division properties?</li> </ul>	<ul style="list-style-type: none"> <li>• What ways can students illustrate and explain their use of the multiplication/division properties?</li> <li>• How do you apply the area and perimeter formulas for rectangles in real world and mathematical problems?</li> </ul>	<ul style="list-style-type: none"> <li>• How will students know what technique to use to add, subtract, compare, and find equivalent fractions?</li> <li>• Will students be able to turn a fraction into decimals and put decimals on a number line?</li> <li>• How will students know what technique to use to add, subtract, compare, and find equivalent fractions?</li> <li>• Will students be able to turn a fraction into decimals and put decimals on a number line?</li> </ul>	<ul style="list-style-type: none"> <li>• How will students know what technique to use to add, subtract, compare, and find equivalent fractions?</li> <li>• Will students be able to turn a fraction into decimals and put decimals on a number line?</li> <li>• How will students know what technique to use to add, subtract, compare, and find equivalent fractions?</li> <li>• Will students be able to turn a fraction into decimals and put decimals on a number line?</li> </ul>

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<p><b>Concept (CCSS Standards)</b></p> <p><i>Italic Information: Recursive standard – repeated in at least one other quarter</i></p> <p><b>BOLD information: Standards that should be emphasized</b></p>	<p><b>4.NF.6 Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</b></p> <p><b>DOK 1: Change the following decimal into a fraction. 0.8=_____ Change the following fraction to a decimal 56/100=_____</b></p>	<p><b>4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols &gt;, =, or &lt;, and justify the conclusions, e.g., by using a visual model.</b></p> <p><b>DOK 1: Compare the two decimals using &lt;, =, &gt;</b></p> <p><b>0.03 &lt; 0.33</b></p> <p><b>DOK 2: Order the decimals from least to greatest</b></p> <p><b>0.3, 0.33, 0.03</b></p> <p><b>0.03, 0.3, 0.33</b></p> <p><b>DOK 3: Use a model to compare the following decimals: 0.4, 0.5, 0.8</b></p>	<p><b>4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</b></p> <p><b>DOK 1: Use the line plot below to answer the following questions.</b></p> <p><i>*look at file</i></p>	<ol style="list-style-type: none"> <li><b>1. Make sense of problems and persevere in solving them.</b></li> <li><b>2. Reason abstractly and quantitatively.</b></li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li><b>4. Model with mathematics.</b></li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision.</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	
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