

**Standards Curriculum Map  
Bourbon County Schools  
Mathematical Practices**

MP.1. Make sense of problems and persevere in solving them.  
MP.2. Reason abstractly and quantitatively.  
MP.3. Construct viable arguments and critique the reasoning of others.  
MP.4. Model with mathematics.

MP.5. Use appropriate tools strategically.  
MP.6. Attend to precision.  
MP.7. Look for and make use of structure.  
MP.8. Look for and express regularity in repeated reasoning.

[2020-2021 Pacing Guide](#)

**Level: 4th**

**Grade and/or Course: Math**

**Updated/Created: March 2020**

<b>Days 1-5</b>	<b>Review</b>				
<b>Days: 6-20</b>	<b>KAS:</b>	<b>Skills/Targets:</b>	<b>Vocabulary:</b>	<b>Strategies/ Activities:</b>	<b>Resources:</b>
<b>Unit 1</b>	<p><b>4.NBT.1 MP.7</b> Recognize in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</p> <p><b>4.NBT.2 MP.2, MP.7</b> Represent and compare multi-digit whole numbers.</p>	<p>I can recognize the relationship of the same digits located in different places in a whole number.</p> <p>I can read and write multi-digit numbers using base-ten numerals, number names, and expanded form.</p>	<p>vocabulary algorithm Base-ten numeral compare estimate Expanded form hundreds hundred thousands number name</p>	<p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos</p>	<p><a href="#">NBT.1 Digital Worksheets</a> <a href="#">NBT.1 Digital Task Cards</a> <a href="#">NBT.1 Slides Activity 1</a> <a href="#">NBT.1 Slides Activity 2</a> <a href="#">NBT.1 Exit Slip</a> <a href="#">NBT.1 Slides Quiz</a>  <a href="#">NBT.2 Digital</a></p>

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	<p>a. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form.</p> <p>b. Compare two multi-digit numbers based on meaning of the digit in each place, using <math>&gt;</math>, <math>=</math>, <math>&lt;</math> symbols to record the results of comparisons.</p> <p><b>4.NBT.3 MP.2, MP.6</b> Use place value understanding to round multi-digit whole numbers to any place.</p> <p><b>4.NBT.4 MP.2, MP.8</b> Fluently add and subtract multi-digit whole numbers using an algorithm.</p>	<p>I can compare the values of two multi-digit numbers using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math>.</p> <p>I can use place value understanding to round multi-digit whole numbers.</p> <p>I can fluently add multi-digit whole numbers using an algorithm.</p> <p>I can fluently subtract multi-digit whole numbers using an algorithm.</p>	<p>ones order period place value round tens ten thousands thousands</p>	<p>Calculator Freckle Zearn</p>	<p><u>Worksheets</u> NBT.2 Digital Task Cards NBT.2 Slides Activity 1 NBT.2 Slides Activity 2 NBT.2 Exit Slip NBT.2 Slides Quiz</p> <p>4.NBT.3 Rounding (Ready Lessons)</p> <p>Place Value Escape from Number Island (Ashleigh)</p> <p>Place Value Cooperative Group Activity (Teaching with a Mountain View)</p> <p>Place Value Detectives (Teaching with a Mountain View)</p> <p>4.NBT.1 (CC's Cool</p>
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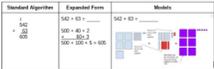
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**HOT questions:**

- How many ways can you show the number with base-10 blocks?
- What would happen to the number (e.g., the 4) if I moved it here?
- Can you solve this in a different way?
- How can you check your subtraction (or addition) problem? Why does that work?
- Explain, using a model, what happens to a number when you multiply it by
- Why? What happens when you multiply a number by 100? Why?
- When two whole numbers that do not begin with zero are compared, the longer one is always greater. Does that hold true for numbers with decimals smaller than 1? Why or why not? Use examples.
- What happens to the number (e.g., the 4) when I move it one place to the left? One place to the right? Why? What is the relationship

## Standards Curriculum Map Bourbon County Schools

<b>Days: 21-35</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 2</b>	<p><b>4.NBT.5 MP.3, MP.4, MP.8</b> Multiply whole numbers</p> <ul style="list-style-type: none"> <li>• up to four digit number by a one-digit number</li> <li>• two-digit number by two-digit number</li> </ul> <p>Multiply 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.</p>	<p>I can multiply whole numbers using place value strategies.</p> <p>I can multiply whole numbers using the properties of operations.</p> <p>I can illustrate and explain multiplication by using equations, rectangular arrays, and/or area models.</p>	<p>distributive property partial products associative property of multiplication commutative property of mathematics product factor</p>	<div style="text-align: center;">  </div> <p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	<b>Two digit Multiplication with a koosh ball (Runde's Room)</b>
<b>**Not for Mastery**</b>	<p><b>4.OA.3 MP.1, MP.4</b> Solve multi-step problems.</p> <p>a. Perform operations in the conventional order when there are no parentheses to specify a</p>	<p>I can solve equations using order or operations.</p> <p>I can solve multi-step word problems using addition, subtraction, multiplication, and/or division.</p>			

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	<p>particular order.</p> <p>b. Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computations and estimation strategies using rounding.</p>	<p>I can interpret remainders</p> <p>I can represent problems using equations with a letter standing for the unknown quantity.</p> <p>I can assess the reasonableness of answers using mental math and estimation.</p>			
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### **HOT questions:**

- What does  $a \times b$  mean? How else can you explain it?
- How are multiplication tables built? Explain using one table as an example.
- How does modeling multiplication differ from modeling addition? Why?
- Why do we say that multiplication and division are inverse operations? How can that help you make division easier?
- If the divisor doubles, what happens to the quotient? What if the divisor is cut in half?
- If the multiplier is cut in half and the number being multiplied is doubled, what happens to the product? Use a model to explain.

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- Write a real-life problem to go with the equation.
- Explain how each symbol relates to the story.

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<b>Days: 36-40</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 3</b>	<p><b>4.OA.4 MP.5, MP.7</b> Find factors and multiples of numbers in the range 1-100.</p> <p>a. Find all factor pairs for a given whole.</p> <p>b. Recognize that a whole number is a multiple of each of its factors.</p> <p>c. Determine whether a given whole number is a multiple of a given one-digit number.</p> <p>d. Determine whether a given whole number is prime or composite.</p> <p><b>4.OA.5 MP.2, MP.3</b> Generate a number or shape pattern that follows</p>	<p>I can find all factor pairs for a given whole number.</p> <p>I can recognize that whole number is a multiple of each of its factors.</p> <p>I can determine whether a given whole number is a multiple of a given one-digit number.</p> <p>I can determine whether a given whole number is prime or composite.</p> <p>I can generate a number pattern that follows a given rule.</p>	<p>product factor multiple prime number composite number even number odd number equation pattern rule</p>	<p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	<p><b>Factors, Multiples, Arrays (forkin4th)</b></p> <p><b>4.OA.4 Worksheet (TeachLiveDream)</b></p> <p><b>Patterns (Cassi Noack)</b></p> <p><b>Patterns (Little Lovely Leaders)</b></p> <p><b>Patterns and Functions (Teaching with a Mountain View)</b></p> <p><b>Patterns and Functions (Teaching with a Mountain View)</b></p> <p><b>4.OA.5 task cards (Math Mojo)</b></p>

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	a given rule. Identify apparent features of the pattern not explicit in the rule itself	I can identify features of a pattern that the rule doesn't tell me.			
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**HOT questions:**

- What's the pattern of growth?
- How are the numbers changing?
- What could a table show you?
- Is there something that is the same every time?
- What does that tell you?

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<b>Days:</b> <b>41-55</b>	<b>KAS:</b>	<b>Skills/Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 4</b>	<p><b>4.NBT.6 MP.3, MP.7, MP.8</b> Divide up to four-digit dividends by one-digit divisors. Find whole number quotients and remainders using</p> <ul style="list-style-type: none"> <li>● strategies based on place value</li> <li>● the properties of operations</li> <li>● the relationship between multiplication and division</li> </ul> <p>Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>I can divide a four-digit dividend by a one-digit divisor to find a quotient with or without a remainder.</p> <p>I can find whole number quotients and remainders using place value strategies.</p> <p>I can find whole number quotients and remainders using the properties of operations.</p> <p>I can find whole number quotients and remainders using the relationship between multiplication and division.</p> <p>I can illustrate and explain division by using equations, rectangular arrays, and/or are models.</p>	<p>quotient remainder multiple multi-step problem remainder Unknown quantity estimation</p>	<p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	<p><b>Movie Marathon Division project (Teaching with a Mountain View)</b></p> <p><b>Division and interpreting Remainders (forkin4th)</b></p>

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<p><b>**Not for Mastery **</b></p>	<p><b>4.OA.3 MP.1, MP.4</b> Solve multi-step problems.</p> <p>a. Perform operations in the conventional order when there are no parentheses to specify a particular order.</p> <p>b. Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computations and estimation strategies using rounding.</p>	<p>I can solve equations using order or operations.</p> <p>I can solve multi-step word problems using addition, subtraction, multiplication, and/or division.</p> <p>I can interpret remainders</p> <p>I can represent problems using equations with a letter standing for the unknown quantity.</p> <p>I can assess the reasonableness of answers using mental math and estimation.</p>			
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**HOT questions:**

- What does a remainder represent?
- Why do we say that multiplication and division are inverse operations? How can that help you make division easier?
- If the divisor doubles, what happens to the quotient? What if the divisor is cut in half?

**Standards Curriculum Map  
Bourbon County Schools**

<b>Days: 56-62</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 5</b>	<p><b>4.OA.1 MP.2, MP.4</b> Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.</p> <p><b>4.OA.2 MP.1, MP.2, MP.3</b> Multiply or divide to solve word problems involving multiplicative comparisons by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</p>	<p>I can interpret a multiplication equation as a comparison.</p> <p>I can represent verbal statements of multiplicative comparisons as equations.</p> <p>I can solve word problems involving multiplicative comparisons using multiplication or division.</p> <p>I can solve word problems involving multiplicative comparisons by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>I can distinguish multiplicative comparison from additive comparison.</p>	<p>distributive property partial products associative property of multiplication commutative property of mathematics product factor multiplicative comparison additive comparison quotient remainder multiple</p>	<p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	<p><b>Multiplicative Comparisons (4.OA.1 and 4.OA.2) (Games 4 Gains)</b></p> <p><b>Math Test Prep Review 4.OA.1-4.OA.5 (Kim Miller)</b></p>
<b>**Not</b>	<b>4.OA.3 MP.1, MP.4</b>	I can solve equations using			

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<p><b>for Mastery **</b></p>	<p>Solve multi-step problems.</p> <p>a. Perform operations in the conventional order when there are no parentheses to specify a particular order.</p> <p>b. Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computations and estimation strategies using rounding.</p>	<p>order or operations.</p> <p>I can solve multi-step word problems using addition, subtraction, multiplication, and/or division.</p> <p>I can interpret remainders</p> <p>I can represent problems using equations with a letter standing for the unknown quantity.</p> <p>I can assess the reasonableness of answers using mental math and estimation.</p>			
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**HOT questions:**

- How do I model real world situations to solve problems and answer questions?

**Standards Curriculum Map  
Bourbon County Schools**

<b>Days:</b> <b>63-69</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 6</b>	<p><b>4.NF.1 MP.4, MP.7, MP.8</b> Understand and generate equivalent fractions.</p> <p>a. Use visual fraction models to recognize and generate equivalent fractions that have different numerators/denominators even though they are the same size.</p> <p>b. Explain why a fraction <math>\frac{a}{b}</math> is equivalent to <math>\frac{a}{b}</math> fraction <math>(n \times a)/(n \times b)</math>.</p> <p><b>4.NF.2 MP.2, MP.3</b> Compare two fractions with different numerators and different denominators using the symbols <math>&lt;</math>, <math>=</math>, <math>&gt;</math>. Recognize comparisons are valid only when the two fractions refer to the same whole. Justify the</p>	<p>I can use visual fraction models to recognize and generate equivalent fractions.</p> <p>I can explain how to generate equivalent fractions using multiplication.</p> <p>I can compare two fractions with different numerators using the symbols <math>&lt;</math>, <math>=</math>, and <math>&gt;</math>.</p> <p>I can compare two fractions with different denominators using the symbols <math>&lt;</math>, <math>=</math>, and <math>&gt;</math>.</p>	<p>equivalent fractions numerator denominator whole decompose mixed number unit fraction repeated addition</p>	<p><b>Interactive Notebook</b> <b>Kagan</b> <b>IXL</b> <b>Mappers</b> <b>Prodigy</b> <b>XtraMath</b> <b>Kahoot</b> <b>Quizizz</b> <b>View Board</b> <b>Desmos</b> <b>Calculator</b> <b>Freckle</b> <b>Zearn</b></p>	<p>Equivalent Fractions Hands on (Leah Popinski)</p> <p>Lapbook (Fun in Room 4B)</p> <p>Fractions Project (Teaching with a Mountain View)</p>

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	conclusions.	I can recognize that comparisons are only valid when the fractions refer to the same whole.  I can justify my conclusions.			
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**HOT questions:**

- What's the whole for this fraction?
- What's the unit for the question/answer?
- What does each fraction refer to?
- Show this fraction on the number line.
- How does the size of the fraction change if only the denominator is increased? Decreased? If only the numerator is increased? Decreased? Why?
- Is this fraction  $>$ ,  $=$ , or  $<$  1? How about  $\frac{1}{2}$ ? How do you know?
- You added the numerators but not the denominators. Why?
- How did you get this denominator?
- Explain how to create equivalent fractions.

**Standards Curriculum Map  
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<b>Days:</b> <b>70-82</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 7</b>	<p><b>4.NF.3 M.1, MP.5, MP.7</b> Understand a fraction <math>a/b</math> with <math>a &gt; 1</math> as a sum of fractions <math>1/b</math>.</p> <p>a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p>b. Decomposing a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions.</p> <p>c. Add and subtract mixed numbers with like denominators.</p> <p>d. Solve word problems involving addition and subtraction of fractions</p>	<p>I can compose and decompose a fraction (i.e. <math>7/12 = 4/12 + 1/12 + 1/12 + 1/12</math>).</p> <p>I can describe that adding and subtracting of fractions must refer to the same size whole and having like denominators.</p> <p>I can represent addition of fractions with varied models (including a number line).</p> <p>I can represent subtraction of fractions with varied models (including a number line).</p> <p>I can represent addition of mixed numbers with varied models.</p> <p>I can represent subtraction of mixed numbers with varied models.</p>	<p>equivalent fractions numerator denominator whole decompose mixed number unit fraction repeated addition</p>	<p>About the Math HCPSS <a href="#">4.NF.3 - About the Math Learning Targets, and Rigor: Grade 4 Mathematics</a> Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	<p><a href="#">Copy of 4nf3 Sharing Brownies</a></p> <p><a href="#">Copy of 4NF3_Fractions Decomposed Task .pptx</a></p> <p><a href="#">Copy of 4NF3_Chipanzee Lunch.pptx</a></p>

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	<p>referring to the same whole and having like denominators.</p> <p><b>4.NF.4 MP.5, MP.8</b> Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>a. Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math>.</p> <p>b. Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math> and use this understanding to multiply a fraction by a whole number.</p> <p>c. Solve word problems involving multiplication of a fraction by a whole number</p>	<p>I can add and subtract fractions and mixed numbers with varied strategies.</p> <p>I can solve word problems with adding and subtracting fractions and mixed numbers.</p> <p>I can multiply a fraction by a whole number.</p> <p>I can write a fraction as a product of a whole number and a unit fraction.</p> <p>I can multiply a fraction by a whole number by using repeated addition.</p> <p>I can solve word problems involving multiplication of a fraction by a whole number.</p>			
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**HOT questions:**

- What's the whole for this fraction?
- What's the unit for the question/answer?
- What does each fraction refer to?
- Show this fraction on the number line.
- How does the size of the fraction change if only the denominator is increased? Decreased? If only the numerator is increased? Decreased? Why?
- Is this fraction  $>$ ,  $=$ , or  $<$  1? How about  $\frac{1}{2}$ ? How do you know?
- You added the numerators but not the denominators. Why?
- How did you get this denominator?
- Explain how to create equivalent fractions.
- Explain why you do or do not multiply the denominator when multiplying a fraction by a whole number.

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Days: <b>83-92</b>	KAS:	Skills /Targets:	Vocabulary:	Strategies:	Resources:
<b>Unit 8</b>	<p><b>4.NF.5 MP.5, MP.7</b> Convert and add fractions with denominators of 10 and 100.</p> <p>Convert a fraction with a denominator of 10 to an equivalent fraction with a denominator 10 and 100.</p> <p>Add two fractions with respective denominators 10 and 100.</p> <p><b>4.NF.6 MP.4, MP.7</b> Use decimal notation for fractions with denominators 10 or 100.</p> <p><b>4.NF.7 MP.2, MP.3, MP.5</b> Compare two decimals to hundredths.</p> <p>Compare two decimals to</p>	<p>I can convert a fraction with a denominator of 10 to an equivalent fraction with a denominator of 100.</p> <p>I can add two fractions with denominators of 10 and 100.</p> <p>I can use decimal notation for fractions with denominators 10 or 100.</p> <p>I can compare two decimals to hundredths by reasoning about their size.</p> <p>I can recognize that</p>	<p>convert denominator equivalent decimal notation compare tenths hundredths whole</p>	<p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	

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Bourbon County Schools**

	<p>hundredths by reasoning about their size.</p> <p>Recognize that comparisons are valid only when the two decimals refer to the same whole.</p> <p>Record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, <math>&lt;</math> and justify the conclusions.</p>	<p>comparisons are valid only when referring to the same whole.</p> <p>I can record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, <math>&lt;</math>. I can justify the conclusions.</p>			
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**HOT questions:**

- Explain why  $4/10$  and  $40/100$  are the same. How would you prove this?
- What's the whole for this fraction?
- What's the unit for the question/answer?
- What does each fraction refer to?
- Show this fraction on the number line.
- How does the size of the fraction change if only the denominator is increased? Decreased? If only the numerator is increased? Decreased? Why?
- Is this fraction  $>$ ,  $=$ , or  $<$  1? How about  $1/2$ ? How do you know?
- You added the numerators but not the denominators. Why?
- How did you get this denominator?

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<b>Days:</b> <b>93-107</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 9</b>	<p><b>4.MD.1 MP.5, MP.6</b> Know relative size of measurement units (mass, weight, liquid volume, length, time) within one system of units (metric system, U.S. standard system and time).</p> <p>Understand the relationship of measurement units within any given measurement system.</p> <p>Within any given measurement system, express measurements in a larger unit in terms of a smaller unit.</p> <p>Record measurement equivalents in a two-column table.</p> <p><b>4.MD.2 MP.1, MP.4</b> Use the four operations to</p>	<p>I can know relative size of measurement units (mass, weight, liquid volume, length, time).</p> <p>I can understand the relationship of units within any given measurement system.</p> <p>I can express measurements in a larger unit in terms of a smaller unit.</p> <p>I can record measurement equivalents in a two-column table.</p> <p>I can solve measurement problems using the four</p>	<p>metric system U.S. standard system mass weight liquid volume length time kilograms hectograms dekagrams grams decigrams centigrams milligrams ounces pounds tons kiloliters hectoliters dekaliters liters decukuters centiliters milliliters gallons quarts</p>	<p>Elapsed time number lines with mountain, hills, and rocks</p> <p>Gallon Man/King Gallon Stories</p> <p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	<p><a href="#">4.MD.1 Tic-Tac-Toe Menu</a></p> <p><a href="#">Elapsed Time Interactive Notebook</a></p> <p><a href="#">Measurement Interactive Notebook</a></p> <p><a href="#">4.MD.1 Digital Center</a></p> <p><a href="#">4.MD.1 Digital Center</a></p> <p>Measurement Conversions-The Classroom Nook</p> <p>4.MD.2 Task Cards (Math Lessons Numberock)</p> <p>Measurement and Data Test Prep Game</p>

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	<p>solve word problems involving distances, intervals of time, liquid volumes, masses of objects and money.</p> <p>Solve measurement problems involving whole number, simple fractions or decimals.</p> <p>Solve problems that require converting a given measurement from a larger unit to a smaller unit within a common measurement system, such as 2 km = 2,000 m.</p> <p>c. Visually display measurement quantities using representations such as number lines that feature a measurement scale.</p>	<p>operations.</p> <p>I can solve problems that require converting to a smaller unit.</p> <p>I can visually display measurement quantities.</p>	<p>pints cups liquid ounces kilometers hectometers dekameters meters decimeters centimeters millimeters miles yards feet inches year month week days hours minutes seconds elapsed time distance</p>		<p>(Rosie's Superstars)</p> <p>Geometry and Measurement in the real world (Teaching with a Mountain View)</p>
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### HOT questions:

- How does the structure of the metric system help me measure with precision and accuracy?

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Days: 108-11 2	KAS:	Skills/Targets:	Vocabulary:	Strategies:	Resources:
<b>Unit 10</b>	<p><b>4.OA.3 MP.1, MP.4</b> Solve multi-step problems.</p> <p>a. Perform operations in the conventional order when there are no parentheses to specify a particular order.</p> <p>b. Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computations and estimation strategies</p>	<p>I can solve equations using order or operations.</p> <p>I can solve multi-step word problems using addition, subtraction, multiplication, and/or division.</p> <p>I can interpret remainders</p> <p>I can represent problems using equations with a letter standing for the unknown quantity.</p> <p>I can assess the reasonableness of answers using mental math and estimation.</p>	Unknown quantity estimation	<p>Interactive Notebook Kagan IXL Mappers Prodigy XtraMath Kahoot Quizizz View Board Desmos Calculator Freckle Zearn</p>	

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	using rounding.				
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**HOT questions:**

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Bourbon County Schools**

Days: <b>113-122</b>	KAS:	Skills /Targets:	Vocabulary:	Strategies:	Resources:
<b>Unit 11</b>	<p><b>4.MD.3, MP.1, MP.3</b> Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.</p> <p><b>4.MD.4 MP.1, MP.6</b> Use dot plots to analyze data to a statistical question.</p> <p>Identify a statistical question focused on numerical data</p> <p>Make a dot plot to display a data set of measurements in fractions of a unit (<math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>).</p>	<p>I can use what I know about area and perimeter to solve real-world problems involving rectangles.</p> <p>I can find area of rectangles using the formula.</p> <p>I can find perimeter of rectangles using the formula.</p> <p>I can use dot plots to analyze data.</p> <p>I can identify a statistical question focused on numerical data.</p> <p>I can make a dot plot to display a data set of measurements.</p> <p>I can solve problems involving addition and</p>	<p>area perimeter formula dot plot data statistical question</p>	<p><b>Interactive Notebook</b> <b>Kagan</b> <b>IXL</b> <b>Mappers</b> <b>Prodigy</b> <b>XtraMath</b> <b>Kahoot</b> <b>Quizizz</b> <b>View Board</b> <b>Desmos</b> <b>Calculator</b> <b>Freckle</b> <b>Zearn</b></p>	<p>Line Plots (Teaching with a Mountain View and Kristin Kennedy)</p> <p>Area and Perimeter Problem Solving (Math Chick)</p> <p>Area and Perimeter Activities (Teacher Studio)</p> <p>Distance Learning Area and Perimeter (Teacher Down the Hall)</p> <p>Distance Learning Geoboards (Ford's Board)</p> <p>Perimeter and Area</p>

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	Solve problems involving addition and subtraction of fractions by using information presented in dot plots.	subtraction of fractions by using information presented in dot plots.			Project (Teaching Mountain View) Area, Perimeter, Volume (for kin4th)
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**HOT questions:**

- What is the area? Show me where the area is for this shape. How can I calculate the area?
- Explain why the area can be found by multiplying length times width. What units are appropriate to measure this area? Why are they called that?
- What is perimeter? Show me where the perimeter is for this shape (or for something in the room). How can I calculate the perimeter?
- Prove whether or not a rectangle with a certain perimeter will always look the same.
- Someone said that division is like finding the missing side of a rectangle. Explain that.
- Why do we use square units when we talk about area?
- How can you use properties of area and perimeter to help answer questions and craft arguments?
- How do you collect, organize, and communicate data to answer questions and craft arguments?
- What is the difference between area and perimeter?
- How can you use perimeter and find area or area to find perimeter?

**Standards Curriculum Map  
Bourbon County Schools**

<b>Days:</b> <b>123-132</b>	<b>KAS:</b>	<b>Skills /Targets:</b>	<b>Vocabulary:</b>	<b>Strategies:</b>	<b>Resources:</b>
<b>Unit 12</b>	<p><b>4.MD.5 MP.7</b> Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint and understand concepts of angle measurement.</p> <p><b>4.MD.6 MP.5, MP.6</b> Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p> <p><b>4.MD.7 MP.1, MP.4</b> Recognize angle measure as additive. When an angle is split into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and</p>	<p>I can recognize that angles are formed wherever two rays share a common endpoint.</p> <p>I can relate degrees to fractional parts of a circle.</p> <p>I can measure angles using a protractor.</p> <p>I can sketch angles of a given measure.</p> <p>I can recognize angle measure as additive.</p> <p>I can solve addition and subtraction problems to find unknown angles.</p>	<p>angle ray endpoint degree protractor additive</p>	<p><b>Interactive Notebook</b> <b>Kagan</b> <b>IXL</b> <b>Mappers</b> <b>Prodigy</b> <b>XtraMath</b> <b>Kahoot</b> <b>Quizizz</b> <b>View Board</b> <b>Desmos</b> <b>Calculator</b> <b>Freckle</b> <b>Zearn</b></p>	<p>Measuring Angles (Math Mojo)</p>

**Standards Curriculum Map  
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	mathematical problems.				
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**HOT questions:**

- Construct a right, acute, and obtuse angle. How did you create each angle?

**Standards Curriculum Map  
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Days: <b>133-155</b>	KAS:	Skills /Targets:	Vocabulary:	Strategies:	Resources:
<b>Unit 13</b>	<p><b>4.G.1 MP.5, MP.6</b> Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel lines. Identify these in two-dimensional figures.</p> <p><b>4.G.2 MP.7</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>4.G.3 MP.5, MP.7</b></p>	<p>I can draw (points, lines, line segments, rays, right angles, acute angles, obtuse angles, perpendicular lines, parallel lines).</p> <p>I can identify (points, lines, line segments, rays, right angles, acute angles, obtuse angles, perpendicular lines, parallel lines) in two-dimensional figures.</p> <p>I can classify two-dimensional figures based on parallel and perpendicular lines.</p> <p>I can classify two-dimensional figures based on the size of its angles.</p> <p>I can identify right triangles.</p> <p>I can identify lines of</p>	<p>points lines line segments rays right angles acute angles obtuse angles perpendicular lines parallel lines Two-dimensional figures right triangles lines of symmetry area perimeter formula pattern rule</p>	<p><b>Interactive Notebook</b> <b>Kagan</b> <b>IXL</b> <b>Mappers</b> <b>Prodigy</b> <b>XtraMath</b> <b>Kahoot</b> <b>Quizizz</b> <b>View Board</b> <b>Desmos</b> <b>Calculator</b> <b>Freckle</b> <b>Zearn</b></p>	<p>4.G.1-4.G.3 and 4.OA.5 Jeopardy (Games 4 Gains) 4.G.2 Classifying Polygons (Kathleen and Mande') Geometry Hierarchy Sort (Love Learning)</p> <p>Geometry and Measurement in the Real World (Teaching with a Mountain View)</p> <p>Geometry Fest (Classroom Magic)</p>

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	<p>Identify lines of symmetry.</p> <p>Recognize a line of symmetry for a two-dimensional figure.</p> <p>Identify line-symmetric figures and draw lines of symmetry.</p> <p><b>4.OA.5 MP.2, MP.3</b> Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern not explicit in the rule itself.</p>	<p>symmetry in a two-dimensional figure.</p> <p>I can identify line-symmetric figures.</p> <p>I can draw lines of symmetry.</p> <p>I can generate a shape pattern that follows a given rule.</p> <p>I can identify features of a pattern that the rule doesn't tell me.</p>			
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**HOT questions:**

- Why is a square a rectangle, but a rectangle is not a square? How would you prove this?
- What is the rule of the pattern and how would you justify the rule?
- Develop a shape with four lines of symmetry and a shape with two lines of symmetry. What is different and what is the same with the two shapes?
- What are the defining attributes of (name a polygon)? Does it belong to a larger category of shapes? Name other shapes in that category.
- What is the difference between a \_\_\_\_\_ and a \_\_\_\_\_?
- What are angles and how are they measured?

## Standards Curriculum Map Bourbon County Schools

Ongoing Reading Standards or Math Practices to be incorporated in every unit.		
<b><u>STANDARD #</u></b> (e.g. RL.8.1)	<b><u>STATE THE STANDARD</u></b> (e.g. Cite the relevant textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.)	<b><u>VOCABULARY</u></b> (e.g. <b>RL 8.1</b> textual evidence analyze explicit inference)
<p>4.OA.3 MP.1, MP.4</p> <p>Ongoing throughout the first 4 units and mini unit for mastery in the spring</p>	<p>Solve multi-step problems.</p> <p>a. Perform operations in the conventional order when there are no parentheses to specify a particular order.</p> <p>b. Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computations and estimation strategies using rounding.</p>	