

**CUMBERLAND COUNTY SCHOOL DISTRICT
BENCHMARK ASSESSMENT CURRICULUM PACING GUIDE**

School: Cumberland County Elementary	Subject: Math	Grade: 5th
Benchmark Assessment 1		
Instructional Timeline: Weeks 1-9		
Topic(s): Unit 1: Place Value and Decimal Fractions Module 1		
KCAS Standards	Learning Target (I Can Statement)	Key Vocabulary
<p><u>NBT.1</u> Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p><u>NBT.2</u> Explain the patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole number exponents to denote powers of 10.</p> <p><u>NBT.3</u> Read, write, and compare decimals to thousandths.</p> <p><u>NBT.4</u> Use place value understanding to round decimals to any place.</p> <p><u>NBT.7</u> Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value,</p>	<p><u>5.NBT.1</u></p> <ul style="list-style-type: none"> I can recognize that each place to the left is 10 times larger in a multi-digit number and recognize that each place to the right is 1/10 as much in a multi-digit number. <p><u>5.NBT.2</u></p> <ul style="list-style-type: none"> I can express and illustrate powers of 10 using whole number exponents and explain a pattern for how the number of zeros of a product-when multiplied by 10-relates to the decimal point. <p><u>5.NBT.3</u></p> <ul style="list-style-type: none"> I can read and write decimals to the thousandths in word form, base-ten numerals, and expanded form. I can compare decimals using symbols. <p><u>5.NBT.4</u></p> <ul style="list-style-type: none"> I can use the value of the digit to the right of the place to be rounded to determine whether to round up or down. <p><u>5.NBT.7</u></p> <ul style="list-style-type: none"> I can add, subtract multiply and divide decimals to hundredths using strategies based on place value, properties of operations, or other strategies. 	<ul style="list-style-type: none"> Place value Tenths Hundredths Thousandths Exponents Digit Base ten Standard form Expanded form Word form Unit form Number line Equation Bundling, regrouping <, >, or = Number sentence Centimeter millimeter

<p>properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p> <p>MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems</p>	<p>5.MD.1</p> <ul style="list-style-type: none"> I can convert measurement units within the same measurement system. 	
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Benchmark Assessment 2

Instructional Timeline: **Weeks 10-18**

Topic(s): **Unit 2: Multi-Digit Whole Number and Decimal Operations: Module 2**

KCAS Standards	Learning Target (I Can Statement)	Key Vocabulary
<p>5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>5.OA.2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.</p> <p>NBT.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p>NBT.2 Explain the patterns in the number of zeros of the product when multiplying a</p>	<p>5.OA.1</p> <ul style="list-style-type: none"> I can evaluate (solve) expressions using the order of operations including parenthesis, brackets, or braces. <p>5.OA.2</p> <ul style="list-style-type: none"> I can write and interpret numerical expressions and analyze expressions without solving. <p>5.NBT.1</p> <ul style="list-style-type: none"> I can recognize that each place to the left is 10 times larger in a multi-digit number and recognize that each place to the right is 1/10 as much in a multi-digit number. <p>5.NBT.2</p> <ul style="list-style-type: none"> I can express and illustrate powers of 10 using 	<ul style="list-style-type: none"> Decimal Fraction Multiplier Parentheses Decimal Digit Divisor Equation Equivalence Estimate Exponent Multiple Pattern Product Quotient Remainder Rounding

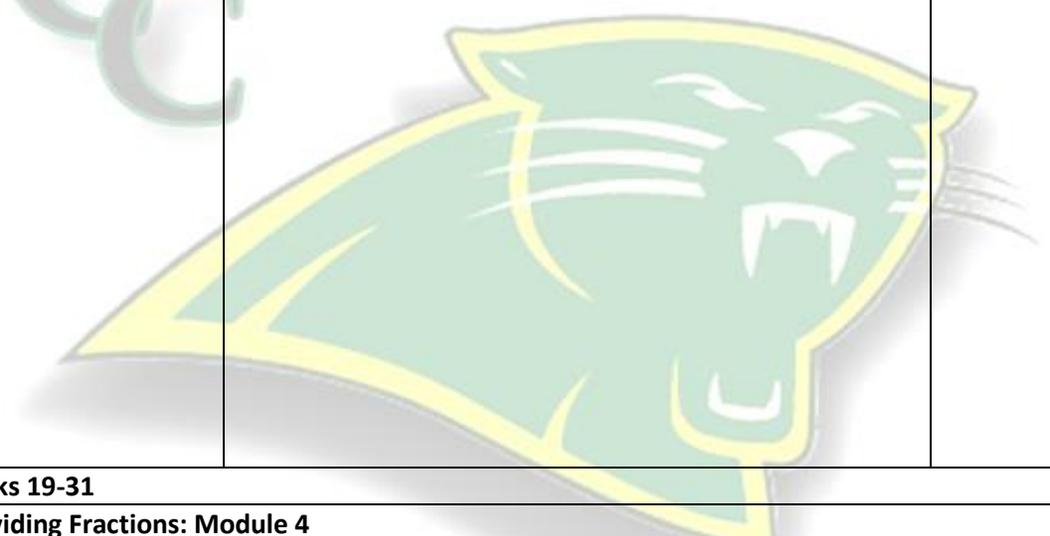
<p>number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole number exponents to denote powers of 10.</p> <p>NBT.5 Fluently multiply multi-digit whole numbers using standard algorithm</p> <p>NBT. 6 Find whole number quotients of whole numbers with up to four digit dividends and two digit divisors, using strategies based on place value, the properties of operations, and/or relationship between multiplication and division. Illustrate and explain by using equations, rectangular arrays, and/or area models.</p> <p>NBT.7 Add, subtract, multiply, and divide decimals to hundredths</p>	<p>whole number exponents and explain a pattern for how the number of zeros of a product-when multiplied by 10-relates to the decimal point.</p> <p>5.NBT.5</p> <ul style="list-style-type: none"> I can use the standard algorithm for multi-digit whole number multiplication <p>5.NBT.6</p> <ul style="list-style-type: none"> I can solve division of whole numbers with four-digit dividends and two-digit divisors. <p>5.NBT.7</p> <ul style="list-style-type: none"> I can add, subtract multiply and divide decimals to hundredths using strategies based on place value, properties of operations, or other strategies. 	<ul style="list-style-type: none"> Unit form
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Benchmark Assessment 3

Instructional Timeline: **Weeks 19-31**

Topic(s) **Addition and Subtraction of Fractions: Module 3**

KCAS Standards	Learning Target (I Can Statement)	Key Vocabulary
<p>5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.</p> <p>5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases</p>	<p>5.NF1</p> <ul style="list-style-type: none"> I can add and subtract fractions with unlike denominators, including mixed numbers. I can create equivalent fractions using common multiples <p>5.NF.2</p> <ul style="list-style-type: none"> I can solve addition and subtraction word problems involving fractions using visual fraction models or equations. 	<ul style="list-style-type: none"> Unlike denominators Like denominators Denominator Numerator Whole unit Fractional unit Number sentence One tenth of Fraction

<p>of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and numbers sense of fractions to estimate mentally and assess the reasonableness of answers.</p>		<ul style="list-style-type: none"> • Equivalent fractions • Tenth • Hundredth • Fraction greater than or equal to 1
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Instructional Timeline: **Weeks 19-31**

Topic(s) **Multiplying and Dividing Fractions: Module 4**

KCAS Standards	Learning Target (I Can Statement)	Key Vocabulary
<p>5.NF.3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>5.NF.4a Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p>	<p>5.NF.3</p> <ul style="list-style-type: none"> • I can explain that fractions can be represented as division of the numerator by the denominator. <p>5.NF.4a</p> <ul style="list-style-type: none"> • I can create story problems involving multiplication of a fraction by a whole number or multiplication of two fractions. <p>5.NF.4b</p> <ul style="list-style-type: none"> • I can determine the area of rectangles with fractional side lengths by multiplying the side 	<ul style="list-style-type: none"> • Decimal Divisor • Simplify • Denominator • Decimal fraction • Commutative Property • Distribute • Equation • Expression • Factors • Fractional unit • Hundredth

<p>5.NF.4b Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as</p> <p>5.NF.5 Interpret multiplication as scaling (resizing), by: Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number</p> <p>5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p>	<p>lengths.</p> <p>5.NF.5</p> <ul style="list-style-type: none"> I can explain why multiplying a given number or fraction greater than 1 results in a product greater than the given number and I can multiply a given fraction by 1. <p>5.NF.6</p> <ul style="list-style-type: none"> I can solve real world problems involving multiplication of fractions and mixed numbers and interpret the product in the context of the problem. <p>5.NF.7</p> <ul style="list-style-type: none"> I can solve real world problems involving division of unit fractions by whole numbers and division of whole numbers by unit fractions. <p>5.OA.1</p> <ul style="list-style-type: none"> I can evaluate (solve) expressions using the order of operations including parenthesis, brackets, or braces. <p>5.MD.2</p> <ul style="list-style-type: none"> I can create a line plot with a given set of unit fractions measurements. I can solve problems using data on line plots. 	<ul style="list-style-type: none"> Line plot Mixed number Quotient Tape Diagram
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<p>5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions f or this grade to solve problems involving information presented in line plots.</p>		
<p>Instructional Timeline: Weeks 19-31</p>		
<p>Topic(s) Unit 5: Volume and Area: Module 5</p>		
KCAS Standards	Learning Target (I Can Statement)	Key Vocabulary
<p>5.MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p>5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.</p> <p>5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>5.NF.4b Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to</p>	<p>5.MD.3</p> <ul style="list-style-type: none"> I can recognize that a cube with 1 unit side length is “one cubic unit” of volume and explain a process for finding the volume of a solid figure by filling it with unit cubes without gaps or overlaps <p>5.MD.4</p> <ul style="list-style-type: none"> I can measure the volume of a hollow three-dimensional figure by filling it with unit cubes without gaps and counting the number of squares. <p>5.MD.5</p> <ul style="list-style-type: none"> I can use unit cubes to determine the volume of rectangular prisms. I can explain multiplication of the area of the base ($l \times w=b$) by the height ($b \times h=V$). I can use formulas to determine the volume of rectangular prisms. 	<ul style="list-style-type: none"> Base Cubic units Height Hierarchy Unit cube Volume Angle Area Cube Face Parallel sides Parallelogram Perpendicular Plane Polygon Quadrilateral Rhombus Square units Trapezoid

<p>find areas of rectangles, and represent fraction products as</p> <p>5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p> <p>5.G.4 Classify two-dimensional figures in a hierarchy based on properties.</p>	<p>5.NF.4b</p> <ul style="list-style-type: none"> I can determine the area of rectangles with fractional side lengths by multiplying the side lengths. <p>5.NF.6</p> <ul style="list-style-type: none"> I can solve real world problems involving multiplication of fractions and mixed numbers and interpret the product in the context of the problem. <p>5.G.3</p> <ul style="list-style-type: none"> I can classify two-dimensional figures by their attributes. I can explain two-dimensional attributes can belong to several two-dimensional figures. <p>5.G.4</p> <ul style="list-style-type: none"> I can group together all shapes that share a single property, and then among these shapes, group together those that share a second and third property. 	<ul style="list-style-type: none"> Three and two dimensional
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Benchmark Assessment 4

<p>Instructional Timeline: Weeks 32-36</p>		
<p>Topic(s) Unit 5: Unit 6: Problem Solving with the Coordinate Plane: Module 6/Review</p>		
<p>KCAS Standards</p>	<p>Learning Target (I Can Statement)</p>	<p>Key Vocabulary</p>
<p>5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the</p>	<p>5.G.1</p> <ul style="list-style-type: none"> I can construct a coordinate system and recognize the origin is the point where 0 lies on each of the axis. I can recognize that the horizontal axis is labeled the x-axis, and the vertical axis is labeled as the y-axis. I can identify an ordered pair as an x-coordinate followed by a 	<ul style="list-style-type: none"> Axis Coordinate Coordinate pair Coordinate plane Ordered pair Origin Intersect

<p>first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate)</p> <p>5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>	<p>y-coordinate. I can explain the relationship between the ordered pair and the location on the coordinate plane.</p> <p>5.G.2</p> <ul style="list-style-type: none"> I can graph points in the first quadrant of a coordinate plane using a set of ordered pairs. I can relate the coordinate values of any graphed point to the context of the problem. <p>Review the following standards</p> <p>5.OA.2</p> <ul style="list-style-type: none"> I can write and interpret numerical expressions. I can analyze expressions without solving. <p>5.OA.3</p> <ul style="list-style-type: none"> I can generate two numerical patterns with the same starting number for two given rules. I can form ordered pairs out of corresponding terms from each pattern and graph them on a coordinate plane. <p>5.NF.2</p> <ul style="list-style-type: none"> I can solve addition and subtraction word problems involving fractions using visual fraction models or equations. <p>5.NF.3</p> <ul style="list-style-type: none"> I can explain that fractions can be represented as division of the numerator by the denominator. <p>5.NF.6</p> <ul style="list-style-type: none"> I can solve real world problems involving multiplication of fractions and mixed numbers and interpret the product in the context of the problem. 	<ul style="list-style-type: none"> Quadrant Degree Horizontal Vertical Perpendicular Parallel Point
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5.NBT.2

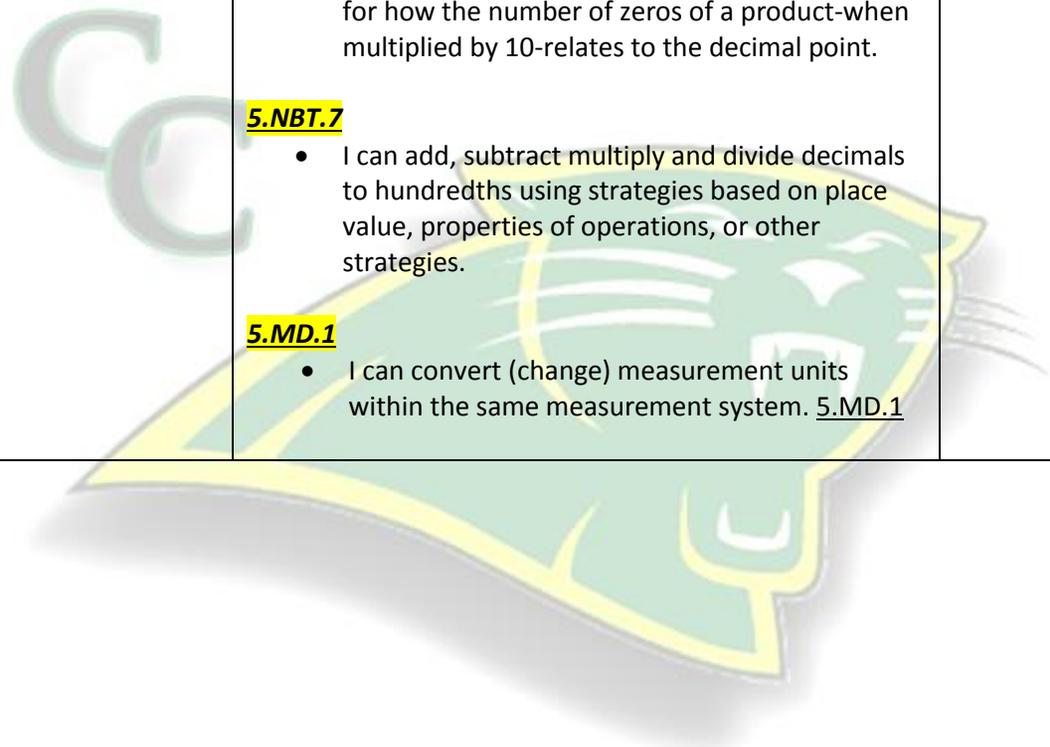
- I can express and illustrate powers of 10 using whole number exponents and explain a pattern for how the number of zeros of a product-when multiplied by 10-relates to the decimal point.

5.NBT.7

- I can add, subtract multiply and divide decimals to hundredths using strategies based on place value, properties of operations, or other strategies.

5.MD.1

- I can convert (change) measurement units within the same measurement system. 5.MD.1



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