Jackson County Core Curriculum Collaborative (JC4)	
	5th Grade Math
Standard	**Learning Targets in Student Friendly Language**
5.OA.1	I can evaluate and write expressions that involve parentheses, brackets, and/or braces.
	I can evaluate numerical expressions with parentheses, brackets, and/or braces.
	I can write numerical expressions with parentheses, brackets, and/or braces.
5.OA.2	I can write simple numerical expressions from verbal expressions without evaluating the expression.
	I can translate verbal expressions to numerical expressions.
	I can translate numerical expressions to verbal expressions.
	I can analyze expressions without solving.
	I can describe the effect one number has on another number without performing the operation.
5.OA.3	I can analyze patterns based on relationships and operations.
	I can construct an input/output table to form ordered pairs.
	I can describe the relationship between two numerical patterns.
	I can explain why the relationship between two numerical patterns on a graph exists.
	I can generate two numerical patterns using two given rules.
	I can graph ordered pairs on a coordinate plane.
	I can identify the relationship between two numerical patterns on a graph.
	I can write the rule for a pattern using a variable.
5.NBT.1	I can explain the relationship between digits in different decimal places.
	I can model place value showing that a digit in one place represents 10 times as much as it represents in the place to its right.
	I can model place value showing that a digit in one place represents 1/10 of what it represents in the place to its left.
5.NBT.2	I can explain the connection between the number of zeros in a number and the multiples of 10, as well as between the decimal point and multiplying/dividing by 10.
	I can explain the pattern in the number of zeros in a product when multiplying by powers of 10.
	I can explain the pattern in moving the decimal point when multiplying or dividing by powers of 10.
	I can express powers of 10 using whole-number exponents.
5.NBT.3.a	I can read, write, and explain decimals using base-ten numerals, number names, and expanded form to the thousandths place.
	I can read and write decimals to the thousandths using base 10 numerals ($347 = 3 \times 10^2 + 4 \times 10^1 + 7 \times 10^0$).
	I can read and write decimals to the thousandths using number names.
	I can read and write decimals to the thousandths using expanded form (with fractions of 1/10, 1/100, and 1/1000 to denote decimal places).
5.NBT.3.b	I can compare decimals using the symbols <, > and =.
	I can compare two decimals to the thousandths using greater than, less than, and equal to symbols.
5.NBT.4	I can round decimals to any given place.
	I can use my understanding of place value to round decimals to any place up to thousandths.
	I can justify the reasonableness of a solution using estimation.
5.NBT.5	I can fluently multiply multi-digit whole numbers.

	I can explain the standard algorithm for multiplying multi-digit whole numbers.	
	I can fluently multiply multi-digit whole numbers using the standard algorithm.	
5.NBT.6	I can find quotients (up to 4-digit dividends and 2-digit divisors) using a variety of strategies.	
	I can divide whole numbers with up to 4-digit dividends and 2-digit divisors.	
	I can divide whole numbers with four-digit dividends and two-digit divisors using place value, rectangular arrays, area model, and/or other strategies.	
	I can explain and illustrate the division process using equations, arrays, and/or models.	
5.NBT.7	I can add, subtract, multiply, and divide decimals using a variety of strategies.	
	I can add decimals through hundredths using strategies based on place value, properties of operations, and models or drawings to explain the reasoning.	
	I can subtract decimals through hundredths using strategies based on place value, properties of operations, and models or drawings to explain the reasoning.	
	I can multiply decimals through hundredths using strategies based on place value, properties of operations, and models or drawings to explain the reasoning.	
	I can divide decimals through hundredths using strategies based on place value, properties of operations, and models or drawings to explain the reasoning.	
	I can prove my calculations are correct and can explain my reasoning and solutions to decimal problems.	
5.NF.1	I can add and subtract fractions and mixed numbers with unlike denominators.	
	I can rewrite two fractions with unlike denominators to have common denominators in order to add or subtract fractions.	
	I can solve addition and subtraction problems involving fractions (including mixed numbers) with like and unlike denominators using an equivalent fraction strategy.	
5.NF.2	I can solve word problems involving addition and subtraction of fractions (with unlike denominators).	
	I can use visual fraction models and/or equations to solve word problems involving adding and subtracting fractions with and without like denominators.	
	I can justify the reasonableness of a solution using estimation and benchmark fractions.	
5.NF.3	I can explain the relationship between fractions and division and use this relationship to solve word problems involving division and express my answers in fraction form.	
	I can define a fraction as division of the numerator by its denominator.	
	I can explain between what two whole numbers the fraction solution lies.	
	I can solve word problems involving the division of two whole numbers where the solution is a fraction or mixed number.	
	I can explain or illustrate my solution strategy using visual fraction models or equations that represent the problem.	
5.NF.4.a	I can multiply a whole number or fraction by a fraction.	
	I can apply what I know about multiplication to multiply a fraction or a whole number by a fraction.	
	I can use a model to multiply a fraction or a whole number by a fraction.	
5.NF.4.b	I can find the area of a rectangle (with fractional side lengths) using a variety of strategies.	
	I can use unit squares to find the area of a rectangle with fractional side lengths and prove it with the use of the area formula.	
	I can determine the area of rectangles with fractional side lengths by multiplying the side lengths (A = l x w).	
5.NF.5.a	I can compare the size of a product to the size of its factors (without performing multiplication).	

	I can describe the size of a product in terms of how many times larger one factor is to another without multiplying.
	I can explain and show why multiplying by a fraction equal to 1 results in an equivalent fraction.
5.NF.5.b	I can explain the result of multiplying a given number by a fraction greater than and less than 1.
	I can explain why multiplying a number by a fraction greater than 1 will result in a product greater than the given number.
	I can explain why multiplying a number by a fraction less than 1 will result in a product smaller than the given number.
	I can multiply a given fraction by 1 (2/2, 4/4, 6/6) to find an equivalent fraction.
5.NF.6	I can solve word problems involving multiplication by fractions and mixed numbers.
	I can solve word problems involving multiplication of fractions and mixed numbers.
	I can draw/show multiplication of fractions through visual models.
	I can write equations to represent word problems involving multiplication of fractions.
5.NF.7.a	I can explain the relationship between multiplication, division, and fractions when dividing a unit fraction by a whole number.
	I can draw/show division of a unit fraction by a whole number as dividing the unit fraction into smaller parts.
	I can divide a unit fraction by a whole number.
	I can explain the effects of dividing a unit fraction by a whole number.
	I can create a story in which division of a unit fraction by a whole number is used.
5.NF.7.b	I can explain the relationship between multiplication, division, and fractions when dividing a whole number by a unit fraction.
	I can define the reciprocal of a unit fraction for the purpose of division.
	I can divide a whole number by a unit fraction.
	I can explain the effects of dividing a whole number by a unit fraction.
	I can create a story in which division of a whole number by a unit fraction is used.
5.NF.7.c	I can solve word problems involving division of fractions using a variety of strategies.
	I can divide a whole number by a unit fraction (vice versa) in the context of word problems.
	I can explain the effects of dividing a whole number by a unit fraction (vice versa) in the context of a word problem.
	I can solve a story/word problem in which division of a whole number by a unit fraction (vice versa) is used.
	I can explain or illustrate my solution strategy using visual fraction models or equations that represent the problem.
5.MD.1	I can convert among units within one measurement system (metric, standard, time, etc.) and use these conversions to solve word problems.
	I can convert measurements within a given measurement system.
	I can solve multi-step measurement conversion word problems.
5.MD.2	I can make a line plot to display a data set involving fractions of a measurement unit and use the information to solve problems.
	I can create and label a line plot to display a data set containing fractions.
	I can calculate the average of a data set containing fractions with unlike denominators.
	I can solve problems using data (fractions) represented in a line plot.
5.MD.3	I can explain the concept of volume using unit cubes.
5.MD.3.a	I can explain a unit cube as having side length of one.
	I can describe volume in terms of cubic units.

5.MD.3.b	I can explain/show the volume of a solid figure through repeated addition of unit cubes.
	I can explain the difference between 2D and 3D figures and identify volume as an attribute of a solid figure.
<mark>**5.MD.4**</mark>	I can measure the volume of objects using a variety of methods and the appropriate units.
	I can measure volume by counting unit cubes, cubic cm, cubic in., cubic ft., and improvised units.
	I can select which units of measurement are most appropriate for measuring volume.
<mark>**5.MD.5**</mark>	I can explain the relationship between the concepts of volume, multiplication, and addition and use that relationship to solve volume word problems.
5.MD.5.a	I can calculate the volume of a right rectangular prism by packing it with unit cubes.
	I can calculate the volume of a right rectangular prism by using the formulas V = l x w x h and V = B x h (Area of the Base times the height).
	I can define right rectangular prism.
	I can relate finding the product of three numbers to finding the volume and relate both to the associative property of multiplication.
5.MD.5.b	I can describe/show how l x w = B (length times width equals area of the base (B).
	I can calculate the volume of a right rectangular prism in the context of a word problem.
5.MD.5.c	I can calculate the volumes of non-overlapping right rectangular prisms and add them together.
	I can solve word problems requiring the calculations of multiple volumes and adding them together.
	I can decompose an irregular shape into non-overlapping rectangular prisms and find the volume of the irregular shape by finding the sum of each of the decomposed prisms.
5.G.1	I can describe a coordinate system using correct vocabulary (axes, origin, points, plane, coordinates, quadrants).
	I can define the coordinate plane as a set of perpendicular lines, called axes.
	I can define the intersection of the perpendicular lines as the origin.
	I can define the first number in an ordered pair as how far the point travels left or right, known as the x-coordinate.
	I can define the second number in an ordered pair as how far the point travels up or down, known as the y-coordinate.
5.G.2	I can represent the context of a problem using a coordinate plane.
	I can graph points in the first quadrant based on word problems.
5.G.3	I can reason using the attributes and categories of two-dimensional figures.
	I can classify two-dimensional figures according to their attributes.
	I can define subcategories using two-dimensional attributes.
	I can explain two-dimensional attributes can belong to several two-dimensional figures.
5.G.4	I can classify two-dimensional figures based on properties.
	I can classify two-dimensional figures based on their properties.
	I can classify two-dimensional figures in a hierarchy based on their properties.
Key:	
<mark>**Yellow Highlight = Critical Area**</mark>	
Blue Font Color = Long Term Learning Goal	
Black Font Color = Short Term (possibly daily) learning target WITHOUT condition and criteria.	