Common Core Standards	I Can Statements	Math Unit Skill
5.NBT.2: Explain 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.	I can represent powers of 10 using whole number exponents. (10^3=10x10x10 = 1,000) I can explain patterns when multiplying a number by powers of 10. I can explain the relationship in the placement of the decimal point when a decimal is multiplied or divided by powers of 10.	**Whole Numbers and Order of Operations-Unit 1** (5 weeks) Place value Digit value Addition Subtraction Multiplication Division Problem solving Evaluating expressions Interpreting expressions Writing expressions
5.NBT.5: Fluently multiply multi-digit whole numbers using the standard algorithm.	I can fluently multiply multi-digit whole numbers using the standard algorithm. I can use strategies to multiply multi-digit whole numbers. I can illustrate and explain multiplication problems.	
5.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 the relationship	I can divide a 4 digit dividend by a two digit divisor to find a quotient with no remainder. I can use strategies to solve division problems.	

between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	I can illustrate and explain division problems	
5.OA.1: Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	I can use the order of operations including braces, brackets and parentheses. I can evaluate expressions using the order of operations including braces, brackets and parentheses.	
5.OA.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.*	I can describe the relationship between expressions without calculating them. I can write numerical expressions for numbers with operation words. I can interpret numerical expressions without evaluating them.	

5.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.	I can determine that a digit represents ten times what it would be in the place to its right. I can recognize that in a multi-digit number, a digit in one place represents 1/10 of the place to its left. I can read and write multi-digit whole numbers using numerals, number names and expanded form. I can compare and order numbers using <, >, and =.	**Decimals-Unit 2** (6 weeks) Place value Digit value Comparing and ordering Rounding Addition Subtraction Multiplication Division Problem solving
5.NBT.2: Explain 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.	I can represent powers of 10 using whole number exponents. (10^3=10x10x10 = 1,000) I can explain patterns when multiplying a number by powers of 10. I can explain the relationship in the placement of the decimal point when a decimal is multiplied or divided by powers of 10.	
5.NBT.3: Read, write, and compare decimals to thousandths.	I can read and write decimals to the thousandths using base ten numerals.	

a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).	I can read and write decimals to the thousandths using number names. I can read and write decimals to the thousandths using expanded form.	
b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	I can compare and order decimals using >, <, and =. I can compare two decimals to the thousandths based on the place value of each digit.	
5.NBT.4: Use place value understanding to round decimals to any place.	I can round decimals.	
5.NBT.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	I can add, subtract, multiply and divide decimals to the hundredths. I can explain the reasoning used to solve decimal problems in written form	

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. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)* *5.NF.2:* Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.*	I can find common denominators. I can add and subtract fractions with unlike denominators using equivalent fractions. I can add and subtract mixed numbers with unlike denominators using equivalent fractions. I can solve problems using addition and subtraction of fractions with like and unlike denominators referring to the same whole. I can use benchmark fractions and number sense of fractions to check for reasonableness of answers.	**Adding, Subtracting, Multiplying and Dividing Fractions-Unit 3** (9 weeks) Equivalent fractions Reducing fractions Finding common denominators Comparing fractions Adding fractions Subtracting fractions Multiplying fractions Dividing fractions Mixed numbers Adding mixed numbers Subtracting mixed numbers Multiplying fractions by a whole number Multiplying mixed numbers Dividing mixed numbers Converting improper fractions to m mixed numbers Converting mixed numbers to improper fractions Problem solving

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. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*	I can interpret a fraction as division of the numerator by the denominator. I can solve word problems involving division of whole numbers with quotients as fractions or mixed numbers. I can recognize the remainder as a fractional part of the problem.	
5.NF.4: Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product $(a/b) \times q$ as a parts of a partition of q	I can multiply fractions. I can determine the sequence of operations when multiplying a fraction to a whole number.	

into *b* equal parts; equivalently, as the result of a sequence of operations *a* × *q* ÷ *b*. *For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)* b. 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 rectangular areas.	I can determine the sequence of operations when multiplying two fractions. I can use different strategies to find the area of a rectangle with fractional side lengths. I can multiply fractional side lengths to find the area of a rectangle. I can prove multiplying fractional side lengths to find the area is the same as tiling a rectangle with unit squares. I can model the area of rectangles with fractional side lengths with unit squares.	
5.NF.5: Interpret multiplication as scaling (resizing), by: a. 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. b. Explaining why multiplying a	I can explain the relationship between two multiplication problems that share a common factor. (225 x 60 and 226 x 30) I can compare the product of two factors without multiplying. (2 x ¼=<1)	

	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; and relating the principle of fraction equivalence a/b = (n×a)/(n×b) to the effect of multiplying a/b by 1.	I can explain why multiplying a fraction greater than one will result in a product greater than the given number. I can explain why multiplying a fraction by one (written as various fractions, ex. 2/2, 3/3, etc.) results in an equivalent fraction. I can explain why multiplying a fraction by a fraction will result in a product smaller than the given number.	
5.NF.7:	Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (Note: Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.)	I can represent division of a fraction by a non-zero whole number in a variety of ways. I can represent division of a whole number by a fraction in a variety of ways. I can represent division of a fraction by a non-zero number and a whole number by a fraction in a variety of ways to solve real world problems.	
a.	Interpret division of a unit		

	fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.		
b.	Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.		
c.	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings		

are in 2 cups of raisins? 5.MD.2: Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*	I can identify benchmark fractions (½, ¼, ⅛). I can solve problems using line plots with halves, fourths, and eighths using any operation. I can make a line plot for measurement of halves, fourths, and eighths.	
5.OA..3: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that*	I can generate two numerical patterns using two given rules. I can form ordered pairs consisting of corresponding terms for the two patterns. I can graph ordered pairs on a coordinate plane in the first quadrant. I can explain the relationship between corresponding terms in the two numerical patterns.	**Geometry and the Coordinate Plane-Unit 4** (3 weeks) Identify numerical patterns Ordered pairs Graphing Identify & plot coordinate pairs in Quadrant 1 Describe paths (lengths) between coordinate pairs Problem Solving

the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.		
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 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).	I can represent real world mathematical problems by graphing points in the first quadrant. I can interpret coordinate points in real world problems.	

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.	I can represent real world mathematical problems by graphing points in the first quadrant. I can interpret coordinate points in real world problems.	
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.* 5.G.4: Classify two-dimensional figures in a hierarchy based on properties.	I can recognize a two-dimensional shaped as classified into a category and its subcategories. I can recognize that two-dimensional shapes can be classified into one or more categories while becoming more specific. I can classify two-dimensional figures into categories and/or sub-categories (hierarchy) based on their attributes.	**<u>Two Dimensional Figures-Unit 5</u>** (6 weeks) Attributes of the following: polygon, rhombus /rhombi, rectangle, square, triangle, quadrilateral, pentagon, hexagon, cube, trapezoid, half circle, quarter circle, circle, right angle, obtuse angle, acute angle, prallel Compare two-dimensional figures and categorize them by their attributes Determine the hierarchy of two-dimensional figures based on their properties.

5.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.	I can divide and multiply to convert measurements. I can convert units of measurement within the same measurement system. I can solve multi-step, real world problems that involve converting measurement units.	**Volume and Measurement-Unit 6** (6 weeks) Meaning of volume Identify the measurement used with volume Use concrete manipulatives to measure volume in cubic inches, centimeters and feet Determine volume using multiplication and addition Problem solving
5.MD.2: Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*	I can identify benchmark fractions (½, ¼, ⅛). I can solve problems using line plots with halves, fourths, and eighths using any operation. I can make a line plot for measurement of halves, fourths, and eighths.	
5.MD.3: Recognize volume as an attribute of solid figures and understand concepts of volume measurement.	I can define volume. I can recognize that unit cubes	

a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.	measure volume of three-dimensional shapes and label it as cubic units.	
5.MD.4: Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	I can measure volume by counting unit cubes, cubic cm, cubic in., cubic ft., and improvised units.	
5.MD.5: Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base.	I can identify a right rectangular prism. I can multiply the three dimensions in any order to calculate volume (commutative and associative properties). I can prove that multiplying length, width and height of a right rectangular prism is the same as filling it with unit cubes to determine volume.	

	Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.	I can find the volume of a right rectangular prism with whole number side lengths by packing it with unit cubes.	
b.	Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.		
c.	Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.		