

First Trimester

		Number and Operations in Base Ten			
	Common Core State Standard		Assessment	Resources	Vocabulary
*Start in August/ September	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.	Teacher Supplemented “Check In” UNIT 1 Post Assessment (teacher made)	Teacher supplemented resources.	Base-ten Base-ten numeral form base-ten numerals
	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.	Teacher Supplemented “Check In” UNIT 1 Post Assessment (teacher made)	Teacher supplemented. Investigations UNIT 1p. 35A,35B,35C	Exponent, Power of 10
	5.NBT.3	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g.,	Teacher Supplemented “Check In”		Tenths, Hundredths Thousandths, Ten-thousandths, expanded form,

	$347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000).$ b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	UNIT 1 Post Assessment (teacher made)		standard form, exponential form,
Finish and move to OA.1 for Unit 2	5.NBT.4 Use place value understanding to round decimals to any place. (. Move to 5.OA.1 and continue 5.NBT.5 in beg of November)	Teacher Supplemented “Check In” Pre and Post Assessment teacher supplemented using standards as backbone.		Nearest tenth, nearest hundredth, nearest thousandth decimal,
Begin in November. End by end of November	5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.	Teacher made pre and post assessment on this standard.		
Continue after 5.NBT.5	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 between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. (End of trimester)	Teacher made pre and post assessment on this standard.		

	Operations and Algebraic Thinking Write and Interpret Numerical Expressions			
	Common Core State Standard	Assessment	Resources	Vocabulary
Begin end of Sept./ first week of October	5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols	<i>"Check in"</i> <i>Standard based teacher created resources.</i> <i>UNIT 2 teacher compiled assessment</i>		parenthesis, brackets, Order of Operations
	5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. <i>For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</i>	<i>"Check in"</i> <i>Standard based teacher created resources.</i> <i>UNIT 2 teacher compiled assessment</i>		expression, equation

Finish end of Oct/ Begin of November. Move to 5.NBT.5	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. <i>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 the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</i> (Until end of October then move to 5.NBT.5)	<i>Standard based teacher created resources.</i> <i>UNIT 2 teacher compiled assessment</i>	<i>Teacher supplemented resources.</i>	Corresponding pattern
Measurement and Data				
	Common Core State Standard		Resources	Vocabulary
5.MD.1	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to .05 m), and use these conversions in solving multi-step, real world problems.	<i>Combined with UNIT 1 5.NBT.1 assessment.</i>	<i>Teacher supplemented</i>	<i>centimeter, millimeter, kilometer, decimeter, liter, milliliter, gram, kilogram,</i>
Geometry				
	Common Core State Standard		Resources	Vocabulary

*Included with 5.OA unit in Beg. of October.	5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate systems, 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 t axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).	<i>Combined with 5.OA.1 assessment. or Unit 2.</i>	<i>Teacher supplemented resources.</i> <i>www.brainpop.com</i>	<i>Origin, x axis, y axis, x coordinate, y coordinate, ordered pair, horizontal, vertical</i>
	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>Combined with 5.OA assessment. UNIT 2</i>		<i>intersection of line, origin, ordered pairs, coordinates, x-coordinate, y-coordinate</i>

Vocabulary

Operations and Algebraic Thinking:

parentheses, brackets, braces, numerical expressions (See CCSS Grade 5 glossary)

Number and Operations in Base Ten:

place value, decimal, decimal point, patterns, multiply, divide, tenths, multiplication/multiply, division/division, decimal, decimal point, tenths, hundredths, products, quotients, dividends, rectangular arrays, area models, addition/add, subtraction/subtract, (properties)-rules about how numbers work, reasoning, thousands, greater than, less than, equal to, $<$, $>$, $=$, compare/comparison, round

Geometry: intersection of lines, origin, ordered pairs, coordinates, x-coordinate, y-coordinate,, x axis, y axis, horizontal, vertical

Resources:

commoncoremathsheets.com

math-aids.com

teacherspayteachers.com

learnzillion.com

brainpop.com

mathworksheetsland.com

Envision Math 2.0 (Use in 2016-2017)

Second Trimester

Number and Operations in Base Ten

			Assessment	Resources	Vocabulary
*Broken into 3 different mini units. This Unit begins the second Trimester.	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.	Standards based assessment created by teacher.	Teacher supplemented materials.	Hundredth, thousandth, dividend, divisor, quotient
Measurement and Data			Assessment	Resources	Vocabulary
*Begin after 5.NBT.7 Early January	5.MD.3- Recognize volume as an attribute of solid figures and understand concepts of volume measurements. <ol style="list-style-type: none"> 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. 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. 		Investigations UNIT 2 p. 19A, 19B, 19C, 19D, 19-23, 25-27, 34, 36B, 38A, 38B, 38C, 36, 37, 47, 49, 50		cube, cubic unit, base, volume, length, width, height

* —	5.MD.4- Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.		
*Conclude end of January	5.MD.5- Relate volume to the operations of multiplication and addition and solve real world and mathematical problems using 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. Represent threefold whole-number products as volumes, eg., to represent the associative property of multiplication. 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.		

<u>Number and Operations - Fractions</u> E. Use equivalent fractions as a strategy to add and subtract fractions.		Assessment	Resources	Vocabulary
*Start at end of Jan./Feb.	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 different of fractions with like denominators. For example, $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$ (In general, $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$.)	Teacher supplemented materials for NF.1, NF.2 and NF.3.	Teacher created resources	LCM (Least common multiple) GCF (Greatest common factor, numerator, denominator, common denominator, equivalent fraction, simplify
*Finish at end of February	Solve word problems involving additions and subtractions of fractions referring to the same whole, including cases of unlike denominators, e.g., by			Mixed number,

**Last Unit of Trimester.	using visual fraction models or equations to represent the problems. 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 $3/7 < 1/2$.			improper fraction
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Vocabulary

Operations and Algebraic Thinking:

Number and Operations - Fractions: improper fraction, numerator, denominator, mixed number, equivalent fraction, LCM (Least common multiple), GCF (Greatest common factor), simplify.

Geometry

coordinate system, coordinate plane, first quadrant, points, lines, axis/axes, x-axis, y-axis, horizontal, vertical,, two-dimensional figures (properties of).

Resources

5.NBT.7:

https://learnzillion.com/lesson_plans/7633-multiply-decimals-by-whole-numbers-by-using-an-area-model

https://learnzillion.com/lesson_plans/6683-use-an-area-model-to-multiply-decimals-by-decimals

Envision Math 2.0

CONCEPTS of VOLUME:

www.commoncoresheets.com/5.md.5

www.commoncoresheets.com/5.md.2

www.commoncoresheets.com/5.md.1

Teacher supplemented resources

Envision 2.0 workbook volume 2: p. 589, 591, 592, 597, 599, 603

Mathworksheetisland.com- Converting measures of length - Independent Practice worksheet, units of volume problems, converting measurements.

Third Trimester

<u>Number and Operations</u>		Assesse mt		Vocabu lary
Fractions:Apply and extend previous understandings of multiplication and division to multiply and divide fractions				
Begin in March. End in beg of May.	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. Between what two whole numbers does your answer lie? <i>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 eight, how many pounds of rice</i>	UNIT 5 Fraction Assessm ent: Teacher supplem ented		Divison bar, improp er fractio n, mixed numbe r

	<i>should each person get? Between what two whole numbers does your answer lie?</i>			
	<p>5.NF.4- Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>A. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i></p> <p>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.</p>	UNIT 6 Post Assessme nt 5.NF.4- 5.NF.7.		
	<p>5.NF.5- Interpret multiplication as scaling (resizing), by:</p> <p>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.</p>			

	<p>B. 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; and relating the principle of fraction equivalence $\frac{a}{b} = \frac{n \times a}{n \times b}$ to the effect of multiplying $\frac{a}{b}$ by 1</p>			
	<p>5.NF.6-Interpret multiplication as scaling (resizing), by:</p> <p>C. 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.</p> <p>D. 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; and relating the</p>			

	principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1			
*Finish beg of May.	<p>5.NF.7-Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.¹</p> <p>A. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. <i>For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</i></p> <p>B. Interpret division of a whole number by a unit fraction, and compute such quotients. <i>For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</i></p>			
<p style="text-align: center;"><u>Geometry</u></p> <p>Classify two-dimensional figures into categories based on their properties.</p>		Assessment	Resources	Vocabulary

*Start in May	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.	Teacher supplemented resource for 5.G.3 and 5.G.4		
*Finish beg of June.	5.G.4-Classify two-dimensional figures in a hierarchy based on properties.			

Vocabulary

Operations and Algebraic Thinking:

Parentheses, Brackets, Braces, Numerical Expressions

Fractions

Fraction, Equivalent, Addition/Sum, Subtraction/Difference, Unlike Denominator, Numerator, Benchmark Fraction, Estimate, Reasonableness, Mixed Numbers, Multiplication/Product, Division/Quotient, Partition, Equal Parts, Equivalent Fraction, Unit Fraction, Area, Side Lengths, Fractional Sides

Resources

Division of Fractions Unit:

Dividing fractions: How to divide a fraction by a fraction:

https://www.youtube.com/watch?v=GOucLIm_vEc

Envision 2.0: Topic 9 p. 526- 529, 543, 545

Multiplying Dividing fraction booklet downloaded from www.teacherspayteachers.com
