



RADNOR TOWNSHIP SCHOOL DISTRICT
5TH GRADE QUICK GLANCE STANDARDS TRACE

INSTRUCTIONAL UNIT	COMMON CORE STANDARDS & PA CORE ELIGIBLE CONTENT	LEARNING TARGETS
UNIT 1: WHOLE NUMBERS	<p>CC.2.1.5.B.1: Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals.</p>	<p>I can count by ten thousands and hundred thousands to 10,000,000. I can use place-value chars to show numbers to 10,000,000. I can read and write numbers to 10,000,000 in standard form and word form. I can identify the place value of any digit in numbers to 10,000,000. I can read and write numbers to 10,000,000 in expanded form. I can compare and order numbers to 10,000,000. I can identify and complete a number pattern. I can find a rule for a number pattern I can round numbers to the nearest thousand. I can locate numbers on a number line. I can use rounding to estimate or check sums, differences and products. I can use related multiplication facts to estimate quotients.</p>
UNIT 2: WHOLE NUMBERS MULTIPLICATION AND DIVISION	<p>CC.2.1.5.B.1: Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals. CC.2.1.5.B.2: Extend an understanding of operations with whole numbers to perform operations including decimals. CC.2.2.5.A.1: Interpret and evaluate numerical expressions using order of operations M05.A-T.2.1.1 Multiply multi-digit whole numbers (not to exceed three-digit by three-digit). M05.A-T.2.1.2 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.</p>	<p>I can use a calculator to add, subtract, multiply, and divide whole numbers. I can multiply numbers by 10, 100, or 1,000 using patterns. I can multiply numbers up to 4 digits by multiples of 10, 100, or 1,000. I can use rounding to estimate products. I can multiply whole numbers by 10 squared or 10 cubed. I can multiply a 2-, 3-, or 4-digit number by a 2-digit number. I can divide numbers by 10, 100, or 1,000 using patterns. I can divide numbers up to 4 digits by multiples of 10, 100, or 1,000. I can use rounding and related multiplication facts to estimate quotients. I can divide a 2-, 3-, or 4-digit number by a 2-digit number. I can use order of operations to simplify a numeric expression. I can evaluate numerical expressions with parentheses, brackets, and braces. I can use efficient strategies to solve multi-step problems involving multiplication and division. I can express and interpret a product or quotient appropriately.</p>

<p>UNIT 3: FRACTIONS AND MIXED NUMBERS</p>	<p>CC.2.1.5.C.1: Use the understanding of equivalency to add and subtract fractions.</p> <p>CC.2.1.5.C.2: Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p> <p>M05.A-F.1.1.1 Add and subtract fractions (including mixed numbers) with unlike denominators. (May include multiple methods and representations.) <i>Example: $2/3 + 5/4 = 8/12 + 15/12 = 23/12$</i></p>	<p>I can add two unlike fractions where one denominator is not a multiple of the other.</p> <p>I can estimate sums of fractions.</p> <p>I can subtract two unlike fractions where one denominator is not a multiple of the other.</p> <p>I can estimate differences between fractions.</p> <p>I can understand and apply the relationships between fractions, mixed numbers, and division expressions.</p> <p>I can express fractions, division expressions, and mixed numbers as decimals.</p> <p>I can add mixed numbers with or without renaming.</p> <p>I can estimate sums of mixed numbers.</p> <p>I can subtract mixed numbers with or without renaming.</p> <p>I can estimate differences between mixed numbers.</p> <p>I can solve real-world problems involving fractions and mixed numbers.</p>
<p>UNIT 4: MULTIPLYING AND DIVIDING FRACTIONS AND MIXED NUMBERS</p>	<p>CC.2.1.5.C.2: Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p> <p>M05.A-F.2.1.1 Solve word problems involving division of whole numbers leading to answers in the form of fractions (including mixed numbers).</p> <p>M05.A-F.2.1.2 Multiply a fraction (including mixed numbers) by a fraction.</p> <p>M05.A-F.2.1.3 Demonstrate an understanding of multiplication as scaling (resizing). <i>Example 1: 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.</i> <i>Example 2: Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given</i></p>	<p>I can multiply proper fractions.</p> <p>I can solve real-world problems involving multiplication of proper fractions.</p> <p>I can multiply improper fractions by proper fractions.</p> <p>I can multiply a mixed number by a whole number.</p> <p>I can compare the size of a product to the size of its factors.</p> <p>I can multiply whole numbers by proper fractions.</p> <p>I can solve real-world problems involving multiplication of whole numbers and mixed numbers.</p> <p>I can divide a fraction by a whole number.</p> <p>I can divide a whole number by a unit fraction.</p> <p>I can solve real-world problems involving multiplication and division in fractions.</p> <p>I can solve real-world problems involving division of a whole number by a unit fraction.</p>

	<p><i>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.</i></p> <p>M05.A-F.2.1.4 Divide unit fractions by whole numbers and whole numbers by unit fractions.</p>	
<p>UNIT 5: ALGEBRA</p>	<p>CC.2.5.A.4: Analyze patterns and relationships using two rules.</p> <p>CC.2.5.A.1: Interpret and evaluate numerical expressions using order of operations</p> <p>M05.B-O.1.1.1 Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols.</p> <p>M05.B-O.1.1.2 Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them. <i>Example 1: Express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$.</i> <i>Example 2: Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$ without having to calculate the indicated sum or product.</i></p> <p>M05.B-O.2.1.1 Generate two numerical patterns using two given rules.</p>	<p>I can identify and extend number patterns.</p> <p>I can identify the relationship between two sets of numbers.</p> <p>I can recognize, write, and evaluate simple algebraic expressions in one variable.</p> <p>I can simplify algebraic expressions in one variable.</p> <p>I can write and evaluate inequalities.</p> <p>I can solve simple equations.</p> <p>I can solve real-world problems involving algebraic expressions.</p>

	<p><i>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.</i></p> <p>M05.B-O.2.1.2 Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules. <i>Example: Given two patterns in which the first pattern follows the rule “add 8” and the second pattern follows the rule “add 2,” observe that the terms in the first pattern are 4 times the size of the terms in the second pattern.</i></p>	
UNIT 6: AREA	CC.2.1.1.B.1: Extend the counting sequence to read and write numerals to represent objects.	<p>I can find the area of a rectangle with fractional side lengths by counting square units, and by using a formula.</p> <p>I can identify the base given the height of a triangle</p> <p>I can identify the height given the base of a triangle</p> <p>I can find the area of a triangle given its base and its height.</p>
UNIT 7: DECIMALS	<p>CC.2.1.5.B.2: Extend an understanding of operations with whole numbers to perform operations including decimals.</p> <p>M05.A-T.1.1.1 Demonstrate an understanding that in a multi-digit number, a digit in one place represents $\frac{1}{10}$ of what it represents in the place to its left. <i>Example: Recognize that in the number 770, the 7 in the tens place is $\frac{1}{10}$ the 7 in the hundreds place.</i></p> <p>M05.A-T.1.1.4 Compare two decimals to thousandths based on meanings of the digits</p>	<p>I can read and write thousandths in decimal and fractional forms.</p> <p>I can represent and interpret thousandths in models or in place-value charts.</p> <p>I can write a fraction with denominator 1,000 as a decimal.</p> <p>I can compare and order decimals to 3 decimal places.</p> <p>I can round decimals to the nearest hundredth.</p> <p>I can rewrite decimals as fractions an mixed numbers in simplest form.</p>

	<p>in each place using $>$, $=$, and $<$ symbols.</p> <p>M05.A-T.1.1.5 Round decimals to any place (limit rounding to ones, tenths, hundredths, or thousandths place).</p>	
<p>UNIT 8: MULTIPLYING AND DIVIDING DECIMALS</p>	<p>CC.2.1.5.B.2: Extend an understanding of operations with whole numbers to perform operations including decimals.</p> <p>M05.A-T.1.1.2 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>Example 1: $4 \times 10^2 = 400$</i> <i>Example 2: $0.05 \div 10^3 = 0.00005$</i></p> <p>M05.A-T.1.1.3 Read and write decimals to thousandths using base-ten numerals, word form, and expanded form. <i>Example: $347.392 = 300 + 40 + 7 + 0.3 + 0.09 + 0.002 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (0.1) + 9 \times (0.01) + 2 \times (0.001)$</i></p> <p>M05.A-T.2.1.3 Add, subtract, multiply, and divide decimals to hundredths (no divisors with decimals).</p>	<p>I can multiply tenths and hundredths by a 1-digit whole number.</p> <p>I can multiply tenths and hundredths by 10, 100, or 1,000.</p> <p>I can multiply tenths and hundredths by powers of 10.</p> <p>I can multiply tenths and hundredths by multiples of 10, 100, and 1,000.</p> <p>I can divide tenths and hundredths by a 1-digit whole number</p> <p>I can round quotients to the nearest tenth or hundredth.</p> <p>I can divide tenths and hundredths by 10, 100, or 1,000.</p> <p>I can divide tenths and hundredths by multiples of 10, 100, or 1,000.</p> <p>I can estimate decimal sums, differences, products, and quotients.</p> <p>I can convert from a larger metric unit to a smaller metric unit.</p> <p>I can convert from a smaller metric unit to a larger metric unit.</p> <p>I can solve real-world problems involving decimals.</p>
<p>UNIT 9: GRAPHS AND PROBABILITY</p>	<p>CC.2.4.5.A.2: Represent and interpret data using appropriate scale.</p> <p>CC.2.4.5.A.4: Solve problems involving</p>	<p>I can make a line plot to represent data given in fractions of a unit.</p> <p>I can use fractions and their operations to solve problems using data.</p> <p>I can make and interpret a double bar graph</p>

	<p>computation of fractions using information provided in a line plot.</p> <p>M05.C-G.1.1.1 Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-coordinate and y-coordinate). Limit the coordinate plane to quadrant I.</p> <p>M05.C-G.1.1.2 Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.</p> <p>M05.D-M.2.1.1 Solve problems involving computation of fractions by using information presented in line plots.</p> <p>M05.D-M.2.1.2 Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.</p>	<p>I can read points on a coordinate grid.</p> <p>I can plot points on a coordinate grid.</p> <p>I can graph an equation.</p> <p>I can compare two sets of data using tables, graphs, and equations.</p> <p>I can generate, graph, and compare two number patterns.</p> <p>I can list and count all possible combinations.</p> <p>I can draw a tree diagram to show all possible combinations</p> <p>I can use multiplication to find the number of combinations.</p> <p>I can find the experimental probability of an outcome.</p> <p>I can compare the results of an experiment with the theoretical probability.</p>
UNIT 10: ANGLES	No Standards Associated	<p>I can understand and apply the property that the sum of angle measures on a line is 180°.</p> <p>I can understand and apply the property that the sum of angle measures at a point is 360°.</p> <p>I can understand and apply the property that vertical angles have equal measures.</p>
UNIT 11: PROPERTIES OF TRIANGLES AND FOUR-SIDED FIGURES	<p>CC.2.3.5.A.2: Classify two-dimensional figures into categories based on an understanding of their properties.</p> <p>M05.C-G.2.1.1 Classify two-dimensional figures in a hierarchy based on properties.</p> <p><i>Example 1: All polygons have at least three sides, and pentagons are polygons, so all pentagons have at least three sides.</i></p>	<p>I can classify triangles by their side lengths and angle measures.</p> <p>I can understand and apply the property that the sum of the angle measures of a triangle is 180 degrees</p> <p>I can understand and apply the properties of right, isosceles, and equilateral triangles.</p> <p>I can understand that the sum of the length of any two sides of a triangle is greater than the length of the third side.</p> <p>I can understand and apply the properties of parallelogram, rhombus, and trapezoid.</p>

	<p><i>Example 2: A rectangle is a parallelogram, which is a quadrilateral, which is a polygon; so, a rectangle can be classified as a parallelogram, as a quadrilateral, and as a polygon.</i></p>	
<p>UNIT 12: SURFACE AREA AND VOLUME</p>	<p>CC.2.4.5.A.1: Solve problems using conversions within a given measurement system.</p> <p>M05.D-M.3.1.1 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. Formulas will be provided.</p> <p>M05.D-M.3.1.2 Find volumes of solid figures composed of two non-overlapping right rectangular prisms.</p>	<p>I can build solids using unit cubes.</p> <p>I can determine the number of unit cubes in an irregular solid.</p> <p>I can draw a cube and a rectangular prism on dot paper</p> <p>I can complete a partially drawn cube and rectangular prism on dot paper.</p> <p>I can identify and classify prisms and pyramids.</p> <p>I can identify the solid figure that can be formed from a net.</p> <p>I can find the surface area of a prism by adding the areas of all faces.</p> <p>I can find the volumes of cubes and rectangular prisms.</p> <p>I can find the volume of a solid constructed from unit cubes.</p> <p>I can compare volumes of cubes, rectangular prisms, and other objects.</p> <p>I can use a formula to find the volume of a rectangular prism.</p> <p>I can find the capacity of a rectangular container</p>
<p>UNIT 13: PERCENT</p>	<p>No Standards Associated</p>	<p>I can relate and compare percent, decimals, and fractions.</p> <p>I can express fractions as percent.</p> <p>I can use different ways to find the number represented by a percent.</p> <p>I can solve real-world problems involving percent.</p>