

5.OA Operations and Algebraic Thinking	
<ul style="list-style-type: none"> <input type="checkbox"/> Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.. (5.OA.A.1) <input type="checkbox"/> Write simple expressions that record calculations with numbers. (5.OA.A.2) <input type="checkbox"/> Interpret numerical expressions without evaluating them. (5.OA.A.2) <input type="checkbox"/> Generate two numerical patterns using two given rules.. (5.OA.B.3) <input type="checkbox"/> Identify apparent relationships between corresponding terms. (5.OA.B.3) <input type="checkbox"/> Form ordered pairs consisting of corresponding terms from the two patterns, (5.OA.B.3) <input type="checkbox"/> Graph the ordered pairs on a coordinate plane. (5.OA.B.3) 	
<p><u>Essential Questions</u></p> <p>How does knowing basic facts make problem solving easier? Where does multiplication occur in real life? Why is memorizing basic facts better than finger counting?</p>	<p><u>Enduring Understandings</u></p> <p>There are different ways to calculate mentally. Most involve breaking numbers apart or replacing them with numbers that are easy to compute with; Multiplication and division are inverse operations; Real situations can be represented by writing variable expressions, and those expressions can be evaluated by substituting values for the variable.</p>
<p><u>Suggested Activities and Resources</u> (in addition to guided reading and leveled materials)</p> <p>Play “Say it & Press It” –display a multi-digit number using base-ten materials & have students say the number then enter it on their calculators; Give students a computation problem & 2 estimates for the answer & then ask them to identify answers is a good guess vs. which would be more of a “wild” guess; Help students learn to use “ball park estimates” (i.e., change numbers in a given problem to close-but easier numbers that can be computed mentally.</p>	<p><u>Suggested Assessments</u></p> <p>Students take turns, take a picture, & name the use(s) of number that are depicted. Then ask the other students to signal if they agree or disagree, or see another use depicted; Create a set of pictures showing the different uses of number (or you can use pictures already created or cut out of magazines by students).</p>

5.NBT Number and Operations in Base Ten	
<ul style="list-style-type: none"> <input type="checkbox"/> Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. (5.NBT.A.1) <input type="checkbox"/> Explain patterns in the number of zeros of the product when multiplying a number by powers of 10. (5.NBT.A.2) <input type="checkbox"/> Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. (5.NBT.A.2) <input type="checkbox"/> Read, write, and compare decimals to thousandths. (5.NBT.A.3) <input type="checkbox"/> Use place value understanding to round decimals to any place. (5.NBT.A.4) <input type="checkbox"/> Fluently multiply multi-digit whole numbers using the standard algorithm. (5.NBT.B.5) <input type="checkbox"/> Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors (5.NBT.B.6) <input type="checkbox"/> Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. (5.NBT.B.6) <input type="checkbox"/> Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings. (5.NBT.B.7) 	
<p><u>Essential Questions</u></p> <p>How can you compare and order numbers? How can you compare and order numbers? How can estimation skills and algorithms reinforce one another? How can you evaluate an algebraic expression?</p>	<p><u>Enduring Understandings</u></p> <p>Our number system is based on groups of ten; Whenever we get 10 in one place value, we move to the next greater place value; Place value can be used to write numbers in different but equivalent forms.</p>
<p><u>Suggested Activities and Resources</u> (in addition to guided reading and leveled materials) Base-Ten Riddles - create & have students create riddles for others to solve; Play “Say it & Press It” –display a 2- or 3-digit number using base-ten materials & have students say the number then enter it on their calculators; Use “ball park estimates”; begin with addition of 2-digit numbers without regrouping and when children seem comfortable with this, then move to subtraction of 2-digit numbers without regrouping</p>	<p><u>Suggested Assessments</u></p> <p>Show students 2 sets of multi-digit whole numbers & have them determine which set is ordered correctly from highest to lowest or vice versa. Then ask them to explain their rationale using appropriate manipulatives, etc.</p>

5.NF Numbers and Operations - Fractions	
<ul style="list-style-type: none"> <input type="checkbox"/> Add and subtract fractions with unlike denominators, including mixed numbers. (5.NF.A.1) <input type="checkbox"/> Solve word problems involving addition and subtraction of fractions (5.NF.A.2) <input type="checkbox"/> Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. (5.NF.A.2) <input type="checkbox"/> Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). (5.NF.B.3) <input type="checkbox"/> Solve word problems involving division of whole numbers leading. (5.NF.B.3) <input type="checkbox"/> Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. (5.NF.B.4) <input type="checkbox"/> Interpret multiplication as scaling (resizing). (5.NF.B.5) <input type="checkbox"/> Solve real world problems involving multiplication of fractions and mixed numbers. (5.NF.B.6) <input type="checkbox"/> Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (5.NF.B.7) 	
<p><u>Essential Questions</u></p> <p>How does the knowledge of greatest common factor and least common multiple help in comparing fractions? How can I compare and order fractions? What is meant by a fractional part of something? How are fractions and decimals similar? How do operations with fractions compare to those with whole numbers?</p>	<p><u>Enduring Understandings</u></p> <p>Equivalent fractions name the same part of a whole, and can be found by multiplying or dividing the numerator and denominator by the same non-zero number; Fractions and decimals can be converted and compared; Determining a common denominator is crucial when adding or subtracting fractions, and helpful when comparing fractions.</p>
<p><u>Suggested Activities and Resources</u> (in addition to guided reading and leveled materials)</p> <p>Fraction Notation -- instead of focusing on having students memorize the terms, focus them on investigating the functions of the numerator & denominator - What does the top number in a fraction tell us? What does the bottom number in a fraction tell us? <i>(it tells what's being counted)</i></p>	<p><u>Suggested Assessments</u></p> <p>Students match the correct picture to an oral description. Example - Which picture show a half of a candy bar? Which show a whole candy bar?</p>

5.MD Measurement and Data	
<ul style="list-style-type: none"> <input type="checkbox"/> Convert among different-sized standard measurement units within a given measurement system. (5.MD.A.1) <input type="checkbox"/> Use these conversions in solving multi-step, real world problems. (5.MD.A.1) <input type="checkbox"/> Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). (5.MD.B.2) <input type="checkbox"/> Use operations on fractions for this grade to solve problems involving information presented in line plots. (5.MD.B.2) <input type="checkbox"/> Recognize volume as an attribute of solid figures and understand concepts of volume measurement. (5.MD.C.3) <input type="checkbox"/> Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units. (5.MD.C.4) <input type="checkbox"/> Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. (5.MD.C.5) 	
<p><u>Essential Questions</u></p> <p>How is measurement used in everyday life? How are the measurements of a circle related to one another? When do you need to measure and when is an estimate enough? How are two-dimensional and three-dimensional figures related?</p>	<p><u>Enduring Understandings</u></p> <p>Relationships exist that allow you to change between customary units or metric units by multiplying or dividing; Geometric relationships exist between two-dimensional and three-dimensional figures; Relationships exist that allow you to change between customary units or metric units by multiplying or dividing; Formulas can be used to determine surface area, volume, or capacity of a shape.</p>
<p><u>Suggested Activities and Resources</u> (in addition to guided reading and leveled materials) Each day during opening exercises, have students refer to the calendar to determine the date; Play the “Coin Collector” game – Students take turns picking cards with pictures of coins on them, name the coin, & state its value. The winner is the first students to collect one of each coin type.</p>	<p><u>Suggested Assessments</u></p> <p>Give students a randomly ordered set of the target coins (penny nickel, dime, quarter, & a half dollar), and have them...name each one & state its value and put the set in order from least to greatest value; Show students 2 sets of numbers & have them use manipulatives to determine which set is ordered correctly from highest to lowest.</p>

5.G Geometry	
<ul style="list-style-type: none"> <input type="checkbox"/> Use a pair of perpendicular number lines to define a coordinate system. (5.G.A.1) <input type="checkbox"/> 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. (5.G.A.2) <input type="checkbox"/> Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. (5.G.A.3) <input type="checkbox"/> Classify two-dimensional figures in a hierarchy based on properties. (5.G.A.4) 	
<p><u>Essential Questions</u></p> <p>How are properties used to classify geometric figures? How are angles measured? How are the basic skills of geometry applied in everyday life? How will geometry help me understand how the world is constructed?</p>	<p><u>Enduring Understandings</u></p> <p>Points, lines, and planes are the foundations of geometry; Figures can be similar (same shape different size) or congruent (same shape same size); Figures can be moved in different ways: translation (slide), reflection (flip), or rotation (turn).</p>
<p><u>Suggested Activities and Resources</u> (in addition to guided reading and leveled materials)</p> <p>Explore patterns in nature, art work, floor/ceiling tiles, wallpaper, upholstery fabrics. Find real-life objects that are shaped like 2-D & 3-D shapes; Make a <i>Geometry to Real-Life Connection Chart</i> & add items when found; Students to draw simple 2-D shapes based on the teacher's description of their orientation/direction.</p>	<p><u>Suggested Assessments</u></p> <p>Ongoing observations, questioning, & review; Use direction/orientation vocabulary to direct students where to place the book; Have students pick a specific #D shape out of a collection</p>