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| **Common Core Strand** | **Cluster** | **Standard** | **Learning Targets**  4th Grade Math Curriculum Map – 4th Quarter | **Resources** | **Vocabulary** | **Essential Questions** |
| **Geometry** | **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.** | 4.G.1  1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. | 1. I can draw an example of a point, line, line segment, ray, right angle, acute angle, obtuse angle, perpendicular lines, and parallel lines. (K) 2. I can look for and identify the following in an given two-dimensional figure: point, line, line segment, ray, right angle, acute angle, obtuse angle, perpendicular lines, and parallel lines. (K) | Topic 9 (9-1, 9-2) | point line line segment ray angle right angle acute angle obtuse angle perpendicular parallel two-dimensional | 1. Can I create and identify points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines? |
| 4.G.2  2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. | 1. I can classify two-dimensional shapes into the following categories: those with parallel lines, those with perpendicular lines, those with both parallel and perpendicular lines, those with no parallel or perpendicular lines. (R) 2. I can classify two-dimensional shapes into categories based on the presence or absence of acute, obtuse, or right angles. (R) 3. I can identify a right triangle. (K) | Topic 9 (9-1, 9-4, 9-6) | angle right angle acute angle obtuse angle perpendicular parallel right triangle | 1. How do perpendicular and parallel lines relate to polygons?  2. How are shapes classified by their angle measurements and line relationships? |
| **Geometry** | **Draw and identify lines and angles, and classify shapes by properties of their lines and angles.** | 4.G.3  3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. | 1. I can identify line-symmetric figures. (K) 2. I can define line of symmetry, explain how to identify it in a two-dimensional figure, and explain how folding along the line of symmetry results in matching parts. (K) 3. I can draw a line on a figure to create two symmetric figures. (S) | Topic 19 (19-5) | symmetry line of symmetry | 1. Can I identify lines of symmetry? 2. How can I determine the lines of symmetry of a regular polygon based on its’ number of sides? |
| **Measurement and Data** | **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.** | 4.MD.1 1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ... | 1. I can describe the relative size of measurement units (e.g., km, m, cm, kg, g, lb, oz, l, ml, hr min sec). (R) 2. I can represent a larger unit as a multiple of smaller units within the same system of measurement and record the equivalent measures in a two-column table (e.g., 1 foot = 12 inches, 2 feet = 24 inches, 3 feet = 36 inches). (S) | Topic 16 16-2A | metric units standard units | 1. Do I know how units of measurement relate to each other? 2. Can I select appropriate units of measurement (standard and metric systems)? 3. What are various measurement systems and how are they used in real life? |
| **Measurement and Data** | **Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.** | 4.MD.2 2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. | 1. I can represent measurements using diagrams and correct measurement scale. (S) 2. I can use the four operations to solve measurement word problems. (S) 3. I can solve word problems involving various measurements expressed by whole numbers, fractions, and decimals. (S) 4. I can convert a measurement given in a larger unit into an equivalent measurement and smaller units in order to solve a problem. (S) | Topic 16 16-2A | volume mass unit fraction decimal scale | 1. How can I solve word problems involving measurement?  2. How does place value help to compare numbers? |
| **Represent and interpret data.** | 4.MD.4 **Represent and interpret data.** 4. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection. | 1. I can create a line plot with a given data set of measurements using fractions as a unit. (P) 2. I can use the information on the line plot to solve addition and subtraction problems. (S) | Topic 17 (17-3) 17-4A | graph line plot fraction | 1. How do I solve problems using data from a line plot? |
| **Measurement and Data** | **Geometric measurement: understand concepts of angle and measure angles.** | 4.MD.5a **Geometric measurement: understand concepts of angle and measure angles.** 5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a “one-degree angle,” and can be used to measure angles. | 1. I can identify the parts of an angle (vertex, common endpoint, rays) and define an angle. (K) | Topic 9 9-2, 9-3 9-3A, 9-3B, 9-4A | ray endpoint angle vertex degrees arc | 1. How is a protractor related to a circle? |
| 4.MD.5b **Geometric measurement: understand concepts of angle and measure angles.** 5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. | 1. I can explain that an angle is measured in degrees related to the 360 degrees in a circle. (K) | Topic 9 9-2, 9-3 9-3A, 9-3B, 9-4A | ray endpoint angle vertex degrees arc | 1. How does the measurement of an angle compare to the degrees within a circle? |
| **Measurement and Data** | **Geometric measurement: understand concepts of angle and measure angles.** | 4.MD.6 6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. | 1. I can measure an angle using a protractor in whole-number degrees. (S) 2. I can sketch angles with a given measurement. (S) 3. I can use a protractor to create a given angle measurement. (S) | Topic 9 (9-3) 9-3B, 9-4A | angle degrees protractor | 1. How do I create and measure angles? |
| 4.MD.7 7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. | 1. I can explain that the angle measurement of a large angle is the sum of the angle measures of its decomposed parts. (K) 2. I can write an equation with an unknown angle measurement. (S) 3. I can use addition and subtraction to solve for the missing angle measurements. (S) 4. I can solve word problems involving unknown angles. (S) | Topic 9 (9-3) 9-4A | angle equation | 1. How can I use algebraic reasoning to determine angle measurements? |