

The PCPS scope and sequence/pacing guide contains key topics that MUST be cross referenced continuously with the VDOE enhanced scope and sequence and the VDOE curriculum framework

## 2017-18 Math SOL CROSSWALK Pacing Guide Third Grade - Quarterly Overview Sheet

This is the quarter where the skill will be tested. Manipulatives should be utilized throughout the entire school year to enhance number sense and promote mastery of concepts and facts. Weekly math drills should start during the first 9 weeks.

1 <sup>st</sup> Quarter (2009 SOL)	1 <sup>st</sup> Quarter (2016 SOL)	2 <sup>nd</sup> Quarter (2009 SOL)	2 <sup>nd</sup> Quarter (2016 SOL)
<p><b>Strand: Number and Number Sense</b> <i>Focus: Place Value and Fractions</i></p> <p><b>3.1</b> The student will a) read and write six-digit numerals and identify the place value and value of each digit; b) round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; and c) compare two whole numbers between 0 and 9,999, using symbols (&gt;, &lt;, or =) and words (greater than, less than, or equal to).</p> <p><b>3.2</b> The student will recognize and use the inverse relationships between addition/subtraction to complete basic fact sentences. The student will use these relationships to solve problems.</p> <p><b>Strand: Computation and Estimation</b> <i>Focus: Computation and Fraction Operation</i></p> <p><b>3.4</b> The student will estimate solutions to and solve single-step and multistep problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping.</p> <p><b>Strand: Probability and Statistics</b> <i>Focus: Application of Data and Chance</i></p> <p><b>3.17</b> The student will a) collect and organize data, using observations, measurements, surveys, or experiments; b) construct a line plot, a picture graph, or a bar graph to represent the data; and c) read and interpret the data represented in line plots, bar graphs, and picture graphs and write a sentence analyzing</p>	<p><b>Strand: Number and Number Sense</b></p> <p><b>3.1</b> The student will a) read, write, and identify the place and value of each digit in a six-digit whole number, with and without models; b) round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; and c) compare and order whole numbers, each 9,999 or less.</p> <p><b>Strand: Computation and Estimation</b></p> <p><b>3.3</b> The student will a) estimate and determine the sum or difference of two whole numbers; and b) create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less.</p> <p><b>Strand: Probability and Statistics</b></p> <p><b>3.15</b> The student will a) collect, organize, and represent data in pictographs or bar graphs; and b) read and interpret the data represented in pictographs and bar graphs.</p> <p><b>Strand: Patterns, Functions, and Algebra</b></p> <p><b>3.17</b> The student will create equations to represent equivalent mathematical relationships.</p>	<p><b>Strand: Number and Number Sense</b> <i>Focus: Place Value and Fractions</i></p> <p><b>3.2</b> The student will recognize and use the inverse relationships between multiplication/division to complete basic fact sentences. The student will use these relationships to solve problems.</p> <p><b>3.3</b> The student will a) name and write fractions (including mixed numbers) represented by a model; b) model fractions (including mixed numbers) and write the fractions' names; c) compare fractions having like and unlike denominators, using words and symbols (&gt;, &lt;, or =).</p> <p><b>Strand: Computation and Estimation</b> <i>Focus: Computation and Fraction Operation</i></p> <p><b>3.5</b> The student will recall multiplication facts through the twelves table, and the corresponding division facts.</p> <p><b>Strand: Computation and Estimation</b></p> <p><b>3.6</b> The student will represent multiplication and division, using area, set, and number line models, and create and solve problems that involve multiplication of two whole numbers, one factor 99 or less and the second factor 5 or less.</p> <p><b>3.7</b> The student will add and subtract proper fractions having like denominators of 12 or less.</p> <p><b>Strand: Patterns, Functions, and Algebra</b> <i>Focus: Patterns and Property Concepts</i></p>	<p><b>Strand: Number and Number Sense</b></p> <p><b>3.2</b> The student will a) name and write fractions and mixed numbers represented by a model; b) represent fractions and mixed numbers, with models and symbols; and c) compare fractions having like and unlike denominators, using words and symbols (&gt;, &lt;, =, or ≠), with models.</p> <p><b>Strand: Computation and Estimation</b></p> <p><b>3.4</b> The student will a) represent multiplication and division through <math>10 \times 10</math>, using a variety of approaches and models; b) create and solve single-step practical problems that involve multiplication and division through <math>10 \times 10</math>; c) demonstrate fluency with multiplication facts of 0, 1, 2, 5, and 10; and d) solve single-step practical problems involving multiplication of whole numbers, where one factor is 99 or less and the second factor is 5 or less. [Moved from 3.6]</p> <p><b>Strand: Computation and Estimation</b></p> <p><b>3.5</b> The student will solve practical problems that involve addition and subtraction with proper fractions having like denominators of 12 or less.</p> <p><b>Strand: Patterns, Functions, and Algebra</b></p> <p><b>3.16</b> The student will identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.</p>

<p>the data.</p> <p><b>Strand: Patterns, Functions, and Algebra</b>  <i>Focus: Patterns and Property Concepts</i></p> <p><b>3.20</b> The student will</p> <ul style="list-style-type: none"> <li>a) investigate the identity and the commutative properties for addition</li> <li>b) identify examples of the identity and commutative properties for addition.</li> </ul>		<p><b>3.19</b> The student will recognize and describe a variety of patterns formed using numbers, tables, and pictures, and extend the patterns, using the same or different forms.</p> <p><b>3.20</b> The student will</p> <ul style="list-style-type: none"> <li>a) investigate the identity and the commutative properties for multiplication;</li> <li>b) identify examples of the identity and commutative properties for multiplication.</li> </ul>	<p><b>3.17</b> The student will create equations to represent equivalent mathematical relationships.</p>
<p>3<sup>rd</sup> Quarter (2009 SOL)</p>	<p>3<sup>rd</sup> Quarter (2016 SOL)</p>	<p>4<sup>th</sup> Quarter (2009 SOL)</p>	<p>4<sup>th</sup> Quarter (2016 SOL)</p>

<p><b>Strand: Measurement</b>  <i>Focus: US Customary and Metric Units, Area and Perimeter, and Time</i></p> <p><b>3.11</b> The student will  a) tell time to the nearest minute, using analog and digital clocks; and  b) determine elapsed time in one hour increments over a 12-hour period.</p> <p><b>3.12</b> The student will identify equivalent periods of time, including relationships among days, months, and years, as well as minutes and hours.</p> <p><b>3.8</b> The student will determine, by counting, the value of a collection of bills and coins whose total value is \$5.00 or less, compare the value of the bills and coins, and make change.</p> <p><b>3.9</b> The student will estimate and use U.S. Customary and metric units to measure  a) length to the nearest <math>\frac{1}{2}</math> inch, inch, foot, yard, centimeter, and meter;  b) liquid volume in cups, pints, quarts, gallons, and liters;  c) weight/mass in ounces, pounds, grams, and kilograms; and  d) area and perimeter.</p> <p><b>3.10</b> The student will  a) measure the distance around a polygon in order to determine perimeter; and  b) count the number of square units needed to cover a given surface in order to determine area.</p> <p><b>3.13</b> The student will read temperature to the nearest degree from a Celsius thermometer and a Fahrenheit thermometer. Real thermometers and physical models of thermometers will be</p>	<p><b>Strand: Measurement and Geometry</b></p> <p><b>3.9</b> The student will  a) tell time to the nearest minute, using analog and digital clocks;  b) solve practical problems related to elapsed time in one-hour increments within a 12-hour period; and  c) identify equivalent periods of time and solve practical problems related to equivalent periods of time.</p> <p><b>3.6</b> The student will  a) determine the value of a collection of bills and coins whose total value is \$5.00 or less;  b) compare the value of two sets of coins or two sets of coins and bills; and  c) make change from \$5.00 or less.</p> <p><b>3.7</b> The student will estimate and use U.S. Customary and metric units to measure  a) length to the nearest <math>\frac{1}{2}</math> inch, inch, foot, yard, centimeter, and meter; and  b) liquid volume in cups, pints, quarts, gallons, and liters.</p> <p><b>3.8</b> The student will estimate and  a) measure the distance around a polygon in order to determine its perimeter using U.S. Customary and metric units; and  b) count the number of square units needed to cover a given surface in order to determine its area.</p> <p><b>3.10</b> The student will read temperature to the nearest degree.</p>	<p><b>Strand: Geometry</b>  Focus: Properties of congruence, characteristics of plane and solid figures.</p> <p><b>3.14</b> The student will identify, describe, compare, and contrast characteristics of plane and solid geometric figures (circle, square, rectangle, triangle, cube, rectangular prism, square pyramid, sphere, cone, and cylinder) by identifying relevant characteristics, including the number of angles, vertices, and edges, and the number and shape of faces, using concrete models.</p> <p><b>3.15</b> The student will identify and draw representations of points, line segments, rays, angles, and lines.</p> <p><b>3.16</b> The student will identify and describe congruent and noncongruent plane figures.</p> <p><b>Strand: Probability and Statistics</b>  <i>Focus: Application of Data and Chance</i></p> <p><b>3.18</b> The student will investigate and describe the concept of probability as chance and list possible results of a given situation.</p> <p><b>Strand: Patterns, Functions, and Algebra</b>  Focus: Patterns and Property Concepts</p> <p><b>3.19</b> The student will recognize and describe a variety of patterns formed using numbers, tables, and pictures, and extend the patterns, using the same or different forms.</p>	<p><b>Strand: Measurement and Geometry</b></p> <p><b>3.11</b> The student will identify and draw representations of points, lines, line segments, rays, and angles.</p> <p><b>3.12</b> The student will  a) define polygon (Moved from 4.12a)  b) identify and name polygons with 10 or fewer sides; and (Moved from 4.12b) combine and subdivide polygons with three or four sides and name the resulting polygons(s).</p> <p><b>3.13</b> The student will identify and describe congruent and noncongruent figures.</p> <p><b>Strand: Probability and Statistics</b></p> <p><b>3.14</b> The student will investigate and describe the concept of probability as a measurement of chance and list possible outcomes for a single event.</p> <p><b>Strand: Patterns, Functions, and Algebra</b></p> <p><b>3.16</b> The student will identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.</p>
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