

### SOUTHERN LEHIGH SCHOOL DISTRICT

5775 Main Street Center Valley, PA 18034

## Scope and Sequence for Grade 2 Mathematics

## Standards for Mathematical Practice:

**MP1** Make sense of problems and persevere in solving them.

MP5 Use appropriate tools strategically.

MP2 Reason abstractly and quantitatively. MP6 Attend to precision.

MP3 Construct viable arguments and critique the reasoning of others.

MP7 Look for and make use of structure.

MP4 Model with mathematics.

MP8 Look for and express regularity in repeated reasoning.

## 2.OA – Operations and Algebraic Thinking

CCSSM	PA Core Standards for Mathematics
Represent and solve problems involving addition and subtraction.  2.OA.1	CC.2.2.A.1 Represent and solve problems involving addition and subtraction within 100.
Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	
Add and subtract within 20.  2.OA.2  Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.	CC.2.2.A.2 Use mental strategies to add and subtract within 20.
Work with equal groups of objects to gain foundations for multiplication.  2.OA.3  Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	CC.2.2.A.3 Work with equal groups of objects to gain foundations for multiplication.

# 2.OA – Operations and Algebraic Thinking – *Continued*...

CCSSM	PA Core Standards for Mathematics
2.OA.3 Continued	CC.2.2.A.3 Continued
<b>2.OA.4</b> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	

# 2.NBT – Number & Operation in Base Ten

CCSSM	PA Core Standards for Mathematics
<ul> <li>Understand place value.</li> <li>2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: <ul> <li>a) 100 can be thought of as a bundle of ten tens — called a "hundred."</li> <li>b) The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</li> </ul> </li> </ul>	CC.2.1.2.B.1  Use place value concepts to represent amounts of tens and ones and to compare three digit numbers.
<ul> <li>2.NBT.2 Count within 1000; skip-count by 5s, 10s, and 100s.</li> <li>2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</li> </ul>	CC.2.1.2.B.2 Use place value concepts to read, write and skip count to 1000.
<b>2.NBT.4</b> Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	Intentionally left blank.

## 2.NBT - Number & Operation in Base Ten - Continued...

### CCSSM

### PA Core Standards for Mathematics

### Use place value understanding and properties of operations to add and subtract.

#### 2.NBT.5

Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

#### 2.NBT.6

Add up to four two-digit numbers using strategies based on place value and properties of operations

#### 2.NBT.7

Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

### 2.NBT.8

Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

#### 2.NBT.9

Explain why addition and subtraction strategies work, using place value and the properties of operations.

#### CC.2.1.2.B.3

Use place value understanding and properties of operations to add and subtract within 1000.

# 2.MD – Measurement & Data

CCSSM	PA Core Standards for Mathematics
Measure and estimate lengths in standard units.	CC.2.4.2.A.1
<b>2.MD.1</b> Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	Measure and estimate lengths in standard units using appropriate tools.
<b>2.MD.2</b> Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	
<b>2.MD.3</b> Estimate lengths using units of inches, feet, centimeters, and meters.	
<b>2.MD.4</b> Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	
<b>2.MD.5</b> Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	CC.2.4.2.A.6 Extend the concepts of addition and subtraction to problems involving length.
<b>2.MD.6</b> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,, and represent whole-number sums and differences within 100 on a number line diagram.	
Work with time and money.	CC.2.4.2.A.2
<b>2.MD.7</b> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	Tell and write time to the nearest five minutes using both analog and digital clocks.
<b>2.MD.8</b> Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?	CC.2.4.2.A.3 Solve problems and make change using coins and paper currency with appropriate symbols

## 2.MD – Measurement & Data – Continued...

CCSSM	PA Core Standards for Mathematics
<ul> <li>Represent and interpret data.</li> <li>2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.</li> </ul>	CC.2.4.2.A.4 Represent and interpret data using tables/charts.
<b>2.MD.10</b> Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.	

# 2.G – Geometry

CCSSM	PA Core Standards for Mathematics
<ul> <li>Reason with shapes and their attributes.</li> <li>2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</li> <li>2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</li> </ul>	CC.2.3.2.A.1 Analyze and draw two- and three-dimensional shapes having specified attributes.
2.G.3  Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	CC.2.3.2.A.2 Use the understanding of fractions to partition shapes into halves, quarters, and thirds