## Ballston Spa Central School District

The Common Core State Standards in Our Schools

## Second Grade Mathematics

| Standard | In school, I am learning to... |
| :---: | :---: |
| NUMBERS AND Operations in Base Ten |  |
| Understand place value |  |
| 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: <br> a. 100 can be thought of as a bundle of ten tens - called a "hundred." <br> 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). <br> 2.NBT.2. Count within 1000; skip-count by $5 \mathrm{~s}, 10 \mathrm{~s}$, and 100 s . <br> 2.NBT.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. <br> 2.NBT.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. | - Identify the place value of ones, tens, hundreds. <br> - Identify how many ones are in a ten. <br> - Identify how many tens are in a hundred. <br> - Count to 1,000 . <br> - Count by 5 's. <br> - Count by 10 's. <br> - Count by 100 's. <br> - Skip count starting with various numbers within 100. <br> - Identify numbers w/in 1,000 and write numbers w/in 1,000 . <br> - Create number names w/in 1,000. <br> - Read and write numbers w/in 1,000 using base-ten numerals <br> - Select a number name w/in 1,000 . <br> - Recognize the symbols <, >, and =. <br> - Define greater than, less than, or equal too. <br> - Identify place value of ones, tens, and hundreds. <br> - Choose the correct symbol. |

## Use place value understandings 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

- Fluently add numbers w/in 100, w/out regrouping.
- Fluently add numbers w/in 100, with regrouping.
- Fluently subtract numbers w/in 100 w/out regrouping.
- Fluently subtract numbers w/in 100 w/regrouping.
- Apply the properties of operation.
- Recognize that subtraction is the inverse of addition.
- Understand place value and properties of operations.
- Add three two-digit numbers using place value and properties of operations.
- Add four two-digit numbers using place value and properties of operations.
- Add four two-digit numbers.
- Identify properties of operations and place value.
- Understand inverse operation.
- Line up numbers correctly based on place value.
- Add numbers w/in 1,000 using concrete models, drawing, and strategies with and w/out regrouping.
- Subtract numbers w/in 1,000 using concrete models, drawing, and strategies with and w/out regrouping.
- Use a written method to support the method applied.
- Mentally add 10 or 100 to a number 100-900.
- Mentally subtract 10 or 100 from a number 100-900.
- Explain or model with drawings and/or objects why addition strategies work.
- Explain or model with drawings and/or objects why subtraction strategies work

| Standard | In school, I am learning to... |
| :---: | :---: |
| MEASUREMENT AND DATA |  |
| Measure and estimate lengths in standard units |  |
| 2.MD.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. <br> 2.MD.2. 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. <br> 2.MD.3. Estimate lengths using units of inches, feet, centimeters, and meters. <br> 2.MD.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. | - Select appropriate tool to measure the length of an object. <br> - Identify units of measurement in length (inch, centimeter, etc.) <br> - Correctly use appropriate measurement too. <br> - Identify appropriate measurement tools. <br> - Measure an object twice using objects of different length (such as paper clips crayons, pencils, markers, and erasers) <br> - Correctly use appropriate measurement tools <br> - Describe how the measurements compare to the size of the unit chosen. <br> - Explain how the measurements relate to the size of the unit chosen. <br> - Identify different units of measurements (inches, centimeters, etc.) <br> - Estimate lengths using units of inches, feet, centimeters, and meters. <br> - Measure the length of objects correctly. <br> - Compare the measurement of each object. <br> - Find the difference of the two measurements. |
| Relate addition and subtraction to length |  |
| 2.MD.5. 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. <br> 2.MD.6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0,1 , $2, \ldots$, and represent whole-number sums and differences within 100 on a number line diagram. | - Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. <br> - Use drawings to solve word problems involving length. <br> - Use equations to solve word problems involving length. <br> - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers $0,1,2 \ldots$ <br> - Represent whole-number sums and differences within 100 on a number line diagram. |

## Work with time and money

2.MD.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
2.MD.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $\$$ and $\phi$ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

## Represent and interpret data

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.
2.MD.10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple puttogether, take-apart, and compare problems ${ }^{1}$ using information presented in a bar graph.

- Identify parts of a clock.
- Identify difference between analog and digital clocks.
- Identify a.m. and p.m.
- Read time to the nearest 5 minute intervals.
- Write time to the nearest 5 minute intervals correctly (hours: minutes).
- Identify the name of each coin.
- Identify the value of each coin.
- Add like coins
- Add different coins together.
- Add coins and bills.
- Solve word problems involving money.
- Discuss a line plot and horizontal scale.
- Measure lengths of object correctly.
- Record date of measurements.
- Using the data collected, create a line plot.
- Describe the components of a picture graph and bar graph.
- Create a picture graph and bar graph to represent data.
- Read a picture graph and bar graph that represents data.
- Use data from the picture graph and bar graph to solve questions.


## In school, I am learning to...

## Operations and Algebraic Thinking

## Represent and solve problems involving addition and subtraction

2.OA.1. Use addition and subtraction within 100 to solve one- and twostep 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.

- Model addition of numbers within 100 with objects/pictures.
- Model subtraction of numbers within 100 w/objects/pictures.
- Add two numbers within 100 using equations w/symbols or variable for the unknown.
- Subtract two numbers within 100 using equations w/symbols or variable for the unknown.
- Solve 2 step word problems w/addition or subtraction to solve for an unknown number.

|  | - Solve 1 and 2 step word problems comparing numbers to find the unknown. <br> - Create addition/subtraction w/in 100 using objects/pictures |
| :---: | :---: |
| Add and subtract within 20 |  |
| 2.OA.2. Fluently add and subtract within 20 using mental strategies. ${ }^{2}$ By end of Grade 2 , know from memory all sums of two one-digit numbers. | - Fluently add within 20 using mental strategies. <br> - Fluently subtract within 20 using mental strategies. <br> - Memorize the sums of one digit numbers. |
| 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 $2 s$; write an equation to express an even number as a sum of two equal addends. <br> 2.OA.4. 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. | - Identify even numbers <br> - Identify odd numbers <br> - Count by two's. <br> - Determine if a group of objects is odd or even. <br> - Create an equation that shows an even number as a sum of doubles. <br> - Define/understand the meaning of an array. <br> - Design an array to model addition with up to 5 rows and 5 columns. <br> - Write an equation to express the array as the sum of equal addends. |
| Standard | In school, I am learning to... |
| GEOMETRY |  |
| Reason with shapes and their attributes |  |
| 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. <br> 2.G.2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. <br> 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. | - Recognize shapes based on given attributes. <br> - Draw shapes based on given attributes. <br> - Identify triangle, quadrilaterals, pentagons, hexagons, and cubes. <br> - Identify a square. <br> - Identify a rectangle. <br> - Compare a square and rectangle. <br> - Recognize the differences of a square and rectangle. <br> - Divide a rectangle into rows and columns of same-size squares. <br> - Count the squares to find the total number of them. <br> - Define the words-halves, thirds, half of, a third of, fourths, etc. <br> - Identify equal shares. <br> - Divide circles and rectangles into two, three, or four equal shares. <br> - Demonstrate that equal shares of identical wholes do not need to have the same shape. <br> - Use drawings to make fractions that represent them. |

