Huntsville City Schools
Second Grade Math Pacing Guide
2018-2019

- Thoughtful and effective **planning** throughout the school year is crucial for student mastery of standards.
- Once a standard is introduced, it is understood that the standard is continuously taught and/or reviewed throughout the **entire** school year.
- Some standards appear in multiple grading periods. The bulleted section typed below the standard is the portion of the standard that students should master in that time frame.

First Nine Weeks

Operations and Algebraic Thinking

2.OA.1: Use addition and subtraction within 100 to solve one 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.
- **Within 50**

2.OA.2: Fluently add and subtract within 20 using mental strategies. (See standard 6, Grade 1, for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers.
- **Within 10**

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.

Number and Operations and Base Ten

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:
- **Within 300**

2.NBT.1a: 100 can be thought of as a bundle of ten tens, called a "hundred."

2.NBT.1b: 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).

2.NBT.2: Count within 1000; skip-count by 5s, 10s, and 100s
- **Within 300**

2.NBT.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- **Within 300**

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.
- **Within 50**

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.
- **Add and Subtract 10 from any given number within 300**

2.NBT.9: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Measurement and Data

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…, and represent whole-number sums and differences within 100 on a number line diagram.
- **Number path to number line within 50**

Second Nine Weeks

Operations and Algebraic Thinking

2.OA.1: Use addition and subtraction within 100 to solve one 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.
- **Within 75**

2.OA.2: Fluently add and subtract within 20 using mental strategies. (See standard 6, Grade 1, for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers.
- **Within 20**

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.

Number and Operations and Base Ten

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:
- **Within 500**

2.NBT.1a: 100 can be thought of as a bundle of ten tens, called a "hundred."

2.NBT.1b: 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).

2.NBT.2: Count within 1000; skip-count by 5s, 10s, and 100s
- **Within 500**

2.NBT.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- **Within 500**

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.

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.
- **Within 75**

2.NBT.6: Add up to four two-digit numbers using strategies based on place value and properties of operations.

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.
- **Add and Subtract 10 or 100 within 500**

2.NBT.9: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Measurement and Data

2.MD.1: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

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.

2.MD.3: Estimate lengths using units of inches, feet, centimeters, and meters

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.

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.
- **Within 75**

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…, and represent whole-number sums and differences within 100 on a number line diagram.
- **Within 50**

2.MD.7: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Third Nine Weeks

Operations and Algebraic Thinking

2.OA.1: 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.
- **Within 100**

2.OA.2: Fluently add and subtract within 20 using mental strategies. (See standard 6, Grade 1, for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers.
- **Within 20**

Number and Operations and Base Ten

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:
- **Within 1000**

2.NBT.2: Count within 1000; skip-count by 5s, 10s, and 100s
- **Within 1000**

NBT.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- **Within 1000**

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.

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.
- **Within 100**

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

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.
- **Add or Subtract 10 or 100 within 900**

2.NBT.9: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Measurement and Data

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.
- **Within 100**

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…, and represent whole-number sums and differences within 100 on a number line diagram.
- **Within 100**

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 ¢ symbols appropriately.

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 put-together, take-apart, and compare problems using information presented in a bar graph.

Geometry

2.G.1: Recognize and draw shapes having specified attributes such as a given number of angles or a given number of equal faces. (Sizes are compared directly or visually, not compared by measuring.)
Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- **2D shapes**

Fourth Nine Weeks

Operations and Algebraic Thinking

2.OA.1: 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.

- **Within 100**

2.OA.2: Fluently add and subtract within 20 using mental strategies. (See standard 6, Grade 1, for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers.

- **Within 20**

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.
Understand the following as special cases:

- **Within 1000**

Number and Operations and Base Ten

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

2.NBT.2: Count within 1000; skip-count by 5s, 10s, and 100s

- **Within 1000**

2.NBT.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

- **Within 1000**

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.

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.

- **Within 100**

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

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.

- **Add or Subtract 10 or 100 within 900**

2.NBT.9: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Measurement and Data

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.

- **Within 100**

Geometry

2.G.1: Recognize and draw shapes having specified attributes such as a given number of angles or a given number of equal faces. (Sizes are compared directly or visually, not compared by measuring.)
Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

- **2D & 3D shapes**

2.G.2: Partition a rectangle into rows and columns of same-size squares, and count to find the total number of them.

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, or four fourths. Recognize that equal shares of identical wholes need not have the same shape.