***Murray County Schools***

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***2nd Grade Math Pacing Guide***

***2019-2020***

* 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.

**Standards for Mathematical Practice**

1. **Make sense of problems and persevere in solving them. 5. Use appropriate tools strategically.**
2. **Reason abstractly and quantitatively. 6. Attend to precision**
3. **Construct viable arguments and critique the reasoning of others. 7. Look for and make use of structure.**
4. **Model with Math 8. Look for and express regularity in repeated reasoning.**

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| **First Eight Weeks** | **Second Eight Weeks** | **Third Eight Weeks** | **Fourth Eight Weeks** |
| **Operations and Algebraic Thinking**  **MGSE2.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.  **MGSE2.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.  **MGSE2.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 in Base Ten**  **MGSE2.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:  a.) 100 can be thought of as a bundle of ten tens, called a “hundred.”  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).  **MGSE2.NBT.2** : Count within 1000; skip-count by 5s, 10s, and 100s.  **Measurement and Data**  **MGSE2.MD.1:**  Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.  **MGSE2.MD.3:** Estimate lengths using units of inches, feet, centimeters, and meters.  **MGSE2.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.  **MGSE2.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.  **MGSE2.MD.7**: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.  **MGSE2.MD.8**: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.  **MGSE2.MD.10**: Read & interpret picture & bar graphs. 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**  **MGSE2.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. | **Operations and Algebraic Thinking**  **MGSE2.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.  **MGSE2.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.  **MGSE2.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 in Base Ten**  **MGSE2.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:  a.) 100 can be thought of as a bundle of ten tens, called a “hundred.”  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).  **MGSE2.NBT.2** : Count within 1000; skip-count by 5s, 10s, and 100s.  **MGSE2.NBT.3**: Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.  **MGSE2.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.  **MGSE2.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.  **MGSE2.NBT.6:** Add up to four two-digit numbers using strategies based on place value and properties of operations.  **MGSE2.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.  **MGSE2.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.)  **Geometry**  **MGSE2.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. | **Operations and Algebraic Thinking**  **MGSE2.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.  **MGSE2.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.  **MGSE2.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 in Base Ten**  **MGSE2.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:  a.) 100 can be thought of as a bundle of ten tens, called a “hundred.”  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).  **MGSE2.NBT.2** : Count within 1000; skip-count by 5s, 10s, and 100s.  **MGSE2.NBT.3**: Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.  **MGSE2.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.  **MGSE2.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.  **MGSE2.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.  **MGSE2.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.  **MGSE2.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**  **MGSE2.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.  **MGSE2.MD.4:** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.  **MGSE2.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. | **Operations and Algebraic Thinking**  **MGSE2.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.  **MGSE2.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.  **MGSE2.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.  **Number and Operations in Base Ten**  **MGSE2.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:  a.) 100 can be thought of as a bundle of ten tens, called a “hundred.”  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).  **MGSE2.NBT.2** : Count within 1000; skip-count by 5s, 10s, and 100s.  **MGSE2.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.  **MGSE2.NBT.6:** Add up to four two-digit numbers using strategies based on place value and properties of operations.  **MGSE2.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.  **MGSE2.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**  **MGSE2.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.  **MGSE2.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.  **MGSE2.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**  **MGSE2.G.2:** Partition a rectangle into rows and columns of same-size squares, and count to find the total number of them.  **MGSE2.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. |

***Academic Vocabulary***

Academic language is the specialized vocabulary associated with instruction and mastery of academic content and tasks. The words listed below reflect the minimum vocabulary necessary for students to become proficient with grade-level standards.

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