# Sedalia School District #200

| Level: Elementary | Subject Area: Math | Unit/Grade: Unit 1---Second Grade |
|---|---|---|

**Essential Questions:**
- What tools should I use to be more efficient and effective?
- What does base-ten really mean?
- What should I do if I'm stuck solving a problem?

| Pacing/ Calendar | Standards | Big Idea | Unit Objectives |
|---|---|---|---|
| **Chapter 0** (Aug. 28- Sept. 4)<br><br>**Chapter 1** (Sept. 5- Sept. 23)<br><br>**Chapter 2** (Sept. 24- Oct. 9)<br><br>**Chapter 3** (Oct. 10- Oct.28)<br><br>**42 days** | **2.NBT.A.1** - Understand three-digit numbers are composed of hundreds, tens and ones.<br>**2.NBT.A.2** - Understand that 100 can be thought of as 10 tens – called a "hundred".<br>**2.NBT.A.5** - Compare two three-digit numbers using the symbols >, = or <.<br>**2.NBT.B.6** - Demonstrate fluency with addition and subtraction within 100.<br>**2.NBT.B.8** - Add or subtract within 1000, and justify the solution.<br>**2.NBT.B.9** - Use the relationship between addition and subtraction to solve problems.<br><br>*2.NBT.A.3* - *Count within 1000 by 1s, 10s and 100s starting with any number.*<br>*2.NBT.A.4* - *Read and write numbers to 1000 using number names, base-ten numerals and expanded form.*<br>*2.NBT.B.7* - *Add up to four two-digit numbers.*<br><br>Missouri Learning Standards<br>Show Me Standards | **Chapter 0: Review of mental math from first grade -** This mental math review chapter is intended to improve student number sense and should be practiced for the rest of the year. Encourage students to share their own efficient strategies as well.<br><br>**Chapter 1: Numbers to 1000 -** Chapter 1 is an extremely important chapter.  Students will jump into large numbers quickly.  Students will be expected to read, write, and work with numbers to 1,000.  They will be ordering and comparing numbers and identifying number patterns.<br><br>**Chapter 2: Addition up to 1000 -** Chapter 2 is to continue with the place value understanding and regrouping in ones, tens, and hundreds.  The focus for this chapter is on developing place value.  Practice with counting (forward and backwards by 1, 10, 100s).<br><br>**Chapter 3: Subtraction to 1000 -** Chapter 3 (subtraction up to 1,000) consists of students working with subtraction, regrouping ones, tens, and hundreds.  In addition, they will be subtracting with regrouping across zeros. | **Chapter 0: Review of mental math from first grade -**<br>- Mentally add and subtract one digit numbers.<br>- Mentally add a one digit number to a 2-digit number.<br>- Mentally subtract a one digit number from a 2-digit number.<br><br>**Chapter 1: Numbers to 1000-**<br>- Use base-ten blocks to recognize, read, and write numbers to 1000.<br>- Compare numbers using symbols of greater than, less than, and equal to.<br>- Order three-digit numbers.<br><br>**Chapter 2: Addition up to 1000-**<br>- Mastery of basic addition and subtraction facts to 20.<br>- Use base-ten blocks to add numbers with regrouping.<br>- Solve real-world addition problems.<br><br>**Chapter 3: Subtraction to 1000-**<br>- Use base-ten-blocks to subtract three-digit numbers.<br>- Apply the inverse operations of addition and subtraction.<br>- Solve real-world subtraction problems. |

# Sedalia School District #200

## Essential Questions:
- How do bar models help me solve word problems?
- Does my answer make sense?
- Why do we use multiplication for repeated numbers?

| Pacing/ Calendar | Standards | Big Idea | Unit Objectives |
|---|---|---|---|
| **Chapter 4** (Oct. 31- Nov. 15)<br><br>**Chapter 5** (Nov. 18 - Dec. 3)<br><br>**Chapter 6** (Dec. 4 - Dec. 19)<br><br><br>**33 days** | **2.NBT.C.11** - Write and solve problems involving addition and subtraction within 100.<br>**2.RA.B.3** - Find the total number of objects arranged in a rectangular array with up to 5 rows and 5 columns, and write an equation to represent the total as a sum of equal addends.<br><br>*2.GM.A.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares.*<br><br>Missouri Learning Standards<br>Show Me Standards | **Chapter 4: Using Bar Models (+ and -) -** Chapter 4 will be new to students. Many students will be able to solve problems without the use of a bar model. Encourage all students to both solve a problem, as well as to draw a bar model. Exposure to bar modeling and the ability to represent the math is what is important here, along with the problem solving components. Chapter 4 includes both part-part whole word problems and additive comparison problems. The latter are more difficult. More practice will be provided in later chapters.<br><br>**Chapter 5: Multiplication and Division -** This chapter addresses the key multiplication concepts in the MLS for 2nd grade. These include using equal groups and repeated addition to multiply as well as identifying real-world problems that can be solved by multiplication. It is taught here at the introductory conceptual level as sharing or of equal groups.<br><br>**Chapter 6: Multiplication Tables 2, 5, 10 -** The focus for chapter 6 (mult. Tables of 2,5,10) is to develop an understanding of multiplication and division of 2,5,10. It is not about fact mastery. The content is not expected to be mastered by all students. The focus of this chapter is on informal array models to present multiplication facts. Also students learn to use a known fact to calculate an unknown one (if 2x2=4, then 3x2=one more 2 or 6). Skip counting 2s, 5s, 10s, is also emphasized in the chapter. | **Chapter 4: Using Bar Models (+ and -)-**<br>- Apply and understand the inverse operations of addition and subtraction<br>- Use bar models to solve two step word problems<br><br>**Chapter 5: Multiplication and Division-**<br>- Use equal groups and repeated addition to understand multiplication<br>- Use repeated subtraction of equal groups to understand division<br>- Divide to share equally<br><br>**Chapter 6: Multiplication Tables 2, 5, 10-**<br>- Skip count by 2s, 5s, and 10s to understand multiplication<br>- Use known multiplication facts to find new multiplication facts |

# Sedalia School District #200

| Level: Elementary | Subject Area: Math | Unit/Grade: Unit 3---Second Grade |
|---|---|---|

**Essential Questions:**
- How is mathematics used to measure?
- What counts as an adequate answer?
- Does speed matter in mathematics?

| Pacing/ Calendar | Standards | Big Idea | Unit Objectives |
|---|---|---|---|
| **Chapter 7** (Jan.8 - Jan. 21)<br><br>**Chapter 10** (Jan. 22 - Feb. 6)<br><br>**21 days** | **2.GM.B.4** - Measure the length of an object by selecting and using appropriate tools.<br>**2.GM.B.5** - Analyze the results of measuring the same object with different units.<br>**2.GM.B.6** - Estimate lengths using units of inches, feet, yards, centimeters and meters.<br>**2.GM.B.7** - Measure to determine how much longer one object is than another.<br>**2.NBT.B.6** - Demonstrate fluency with addition and subtraction within 100.<br><br>*2.RA.A.1* - *Demonstrate fluency with addition and subtraction within 20.*<br>*2.NBT.B.10* - *Add or subtract mentally 10 or 100 to or from a given number within 1000.*<br><br>Missouri Learning Standards<br>Show Me Standards | **Chapter 7: Metric Measurement of Length-** In addition to working with metric measurement, Chapter 7 provides for a meaningful way for students to continue to work with addition and subtraction, along with bar models.<br><br>**Chapter 10: Mental Math and Estimation -** Skills and concepts within chapter 10 should be reinforced all year, so do not get stuck in this chapter. The focus of chapter 10 is to enable students to become more flexible and fluent with their thinking. Students do not need to master all strategies presented. This chapter is about thinking flexibility and fluency. | **Chapter 7: Metric Measurement of Length-**<br>- Estimate and measure lengths using the standard metric units of meters and centimeters<br>- Solve one and two-step word problems using length<br><br>**Chapter 10: Mental Math and Estimation-**<br>- Add numbers with up to 3-digits mentally with and without regrouping<br>- Use rounding to estimate to understand reasonableness<br>- Understand when exact answers are needed and when not needed |

# Sedalia School District #200

## Essential Questions:
- How is measurement (money, fractions, length, and time) used in the real world?

| Pacing/ Calendar | Standards | Big Idea | Unit Objectives |
|---|---|---|---|
| **Chapter 11** (Feb. 10 - Feb. 26)<br><br>**Chapter 12** (Feb. 27 - Mar. 6)<br><br>**Chapter 13** Mar. 9 - Mar. 26)<br><br>**Chapter 14** (Mar. 27 - Apr. 6)<br><br>**32 days** | **2.GM.A.3** - Partition circles and rectangles into two, three or four equal shares, and describe the shares and the whole. Demonstrate that equal shares of identical wholes need not have the same shape.<br>**2.GM.B.4** -Measure the length of an object by selecting and using appropriate tools.<br>**2.GM.B.5** - Analyze the results of measuring the same object with different units.<br>**2.GM.B.6** - Estimate lengths using units of inches, feet, yards, centimeters and meters.<br>**2.GM.B.7** - Measure to determine how much longer one object is than another.<br>**2.GM.D.10** - Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.<br><br>*2.GM.D.11 - Describe a time shown on a digital clock as representing hours and minutes, and relate a time shown on a digital clock to the same time on an analog clock.*<br>*2.GM.D.12 - Find the value of combinations of dollar bills, quarters, dimes, nickels and pennies, using $ and ¢ appropriately.*<br>*2.GM.D.13 - Find combinations of coins that equal a given amount.*<br><br>Missouri Learning Standards<br>Show Me Standards | **Chapter 11: Money -** In chapter 11, the dollar to cent conversions may be challenging for students. In addition, some students may struggle to identify the pictures of coins. Use actual coins whenever possible and spend time reviewing number bonds.<br><br>**Chapter 12: Fraction -** The focus is on dividing circles and rectangles into equal parts and labeling the fractional parts. The focus will be to model and name halves, thirds, and fourths based on the number of equal parts a whole is divided into. Demonstrate that equal shares of identical wholes need not have the same shape.<br><br>**Chapter 13: Customary Measurement Length -** The basic units of length in the customary system are feet and inches. The big ideas within this chapter are about measuring in feet and inches, comparing lengths and solving problems regarding length.<br><br>**Chapter 14: Time -** Big ideas for chapter 14 are about telling time to the nearest 5 minutes, reading and writing time and knowing the difference between AM and PM. Elapsed time is introduced, which may be difficult for students. | **Chapter 11: Money-**<br>- Show and count money using coins and bills<br>- Find different combinations that equal a given amount<br><br>**Chapter 12: Fraction-**<br>- Read, write, and identify unit fractions as halve, thirds, and fourths<br>- Order two or more unit fractions of the same size but with different shapes<br><br>**Chapter 13: Customary Measurement Length-**<br>- Use the appropriate tool to measure length<br>- Compare lengths and find the differences<br><br>**Chapter 14: Time-**<br>- Show and tell time to hours and every five minutes after the hour<br>- Use and understand A.M and P.M |

# Sedalia School District #200

| Level: Elementary | Subject Area: Math | Unit/Grade: Unit 5---Second Grade |
|---|---|---|

**Essential Questions:**
- What tools should I use to be most efficient and effective?
- How do mathematical models help me to be an effective problem solver?

| Pacing/ Calendar | Standards | Big Idea | Unit Objectives |
|---|---|---|---|
| Chapter 15 (Apr. 8 - Apr. 21)  Chapter 16 (Apr. 22 - Apr. 30)  Chapter 17 (May 1- May 8)  Chapter 18 (May 11- May 14)  Chapter 19 (May 15 - May 21)    31 days | **2.RA.B.3** - Find the total number of objects arranged in a rectangular array with up to 5 rows and 5 columns, and write an equation to represent the total as a sum of equal addends. **2.DS.A.4** - Solve problems using information presented in line plots, picture graphs and bar graphs. **2.DS.A.5** - Draw conclusions from line plots, picture graphs and bar graphs. **2.GM.A.1.a** - Recognize and draw shapes having specified attributes, such as a given number of angles or sides; Identify triangles, quadrilaterals, pentagons, hexagons, circles and cubes. **2.GM.A.1.b** - Identify the faces of three-dimensional objects.  *2.GM.C.8 - Use addition and subtraction within 100 to solve problems involving lengths that are given in the same units. 2.GM.C.9 - Represent whole numbers as lengths on a number line, and represent whole-number sums and differences within 100 on a number line. 2.DS.A.1 - Create a line plot to represent a set of numeric data, given a horizontal scale marked in whole numbers. 2.DS.A.2 - Generate measurement data to the nearest whole unit, and display the data in a line plot. 2.DS.A.3 - Draw a picture graph or a bar graph to represent a data set with up to four categories.*  [Missouri Learning Standards](#) [Show Me Standards](#) | **Chapter 15: Multiplication Tables of 3 and 4 -** Chapter 15 goes beyond the MLS for grade two, but is crucial for third grade, so needs to be completed. Students will use skip counting and dot paper strategies.  **Chapter 16: Using Bar Models -** Chapter 16 is all about problem solving with multiplication and division as well as measurement and money. Much of this chapter will occur again in third grade, chapter 9.  **Chapter 17: Graphs and Line Plots -** Chapter 17 is about reading and making picture graphs with scales, along with solving problems with picture graphs. Focus on concept of scale. Students can add 3s and 4s to calculate the graph problems.  **Chapter 18: Lines and Surfaces -** Chapter 18 focuses on recognizing, identifying, and drawing parts of lines and curves. Students also are working on identifying and counting flat fluency, along with mental math and estimation strategies.  **Chapter 19: Shapes and Patterns -** Recognizing, identifying, and drawing plane shapes and recognizing and identifying solid shapes are important big ideas in chapter 19. | **Chapter 15: Multiplication Tables of 3 and 4-** - Skip count by 3 and 4 - Solve multiplication word problems - Use known multiplication facts to find new multiplication facts  **Chapter 16: Using Bar Models-** - Use bar models to solve real-world multiplication and division problems - Use bar models to solve real-world measurement and money problems  **Chapter 17: Graphs and Line Plots-** - Read, analyze, draw, and interpret line, picture, and bar graphs - Solve real-world problems using graphs  **Chapter 18: Lines and Surfaces-** - Recognize, identify, classify,and describe parts of lines and curves - Draw parts of lines and curves  **Chapter 19: Shapes and Patterns-** - Recognize and identify plane and solid shapes - Draw shapes having specific attributes |