Content Area: Math Grade Level: 2nd Grade Revised: March 2016

Standards for Mathematical Practice

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

Operations & Algebraic Thinking

- 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.
 - Unit 1: Addition and Subtraction Within 20
 - Unit 2: Addition Within 200
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 5: Time, Graphs, and Word Problems
 - Unit 6: 3-Digit Addition and Subtraction
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 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.
 - Unit 1: Addition and Subtraction Within 20
 - Unit 2: Addition Within 200
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 5: Time, Graphs, and Word Problems
- 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.
 - Unit 1: Addition and Subtraction Within 20
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 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.
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths

Number & Operations in Base Ten

- 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).
 - Unit 2: Addition Within 200
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 6: 3-Digit Addition and Subtraction
- 2. Count within 1000; skip-count by 5s, 10s, and 100s.
 - Unit 2: Addition Within 200
 - Unit 5: Time, Graphs, and Word Problems
 - Unit 6: 3-Digit Addition and Subtraction
- 3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
 - Unit 2: Addition Within 200
 - Unit 6: 3-Digit Addition and Subtraction
- 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.
 - Unit 2: Addition Within 200
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 5: Time, Graphs, and Word Problems
 - Unit 6: 3-Digit Addition and Subtraction
- 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
 - Unit 1: Addition and Subtraction Within 20
 - Unit 2: Addition Within 200
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 5: Time, Graphs, and Word Problems
 - Unit 6: 3-Digit Addition and Subtraction
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
 - Unit 1: Addition and Subtraction Within 20
 - Unit 2: Addition Within 200
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 5: Time, Graphs, and Word Problems
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 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.
 - Unit 2: Addition Within 200
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 6: 3-Digit Addition and Subtraction

- 8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.
 - Unit 2: Addition Within 200
 - Unit 6: 3-Digit Addition and Subtraction
- 9. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)
 - Unit 1: Addition and Subtraction Within 20
 - Unit 2: Addition Within 200
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 6: 3-Digit Addition and Subtraction

Measurement & Data

- 1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 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.
 - Unit 3: Length and Shapes
- 3. Estimate lengths using units of inches, feet, centimeters, and meters.
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
- 4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
 - Unit 3: Length and Shapes
 - Unit 4: Subtract 2-Digit Numbers
- 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.
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 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.
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
 - Unit 5: Time, Graphs, and Word Problems
- 8. 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?
 - Unit 2: Addition Within 200
 - Unit 4: Subtract 2-Digit Numbers
 - Unit 6: 3-Digit Addition and Subtraction
- 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.
 - Unit 3: Length and Shapes

- 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.
 - Unit 5: Time, Graphs, and Word Problems

Geometry

- 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.
 - Unit 3: Length and Shapes
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths
- 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.
 - Unit 5: Time, Graphs, and Word Problems
 - Unit 7: Arrays, Equal Shares, and Adding or Subtracting Lengths