

SAU 16

Quarterly Guide for Grade 2 Common Core State Standards - Mathematics

Quarter 1 - Grade 2

STANDARDS FOR MATHEMATICAL CONTENT:

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.

* *+/- to 20 with unknowns in all positions*

2.1

2.OA.2. Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers.

* *add and subtract within 10*

2.4, 2.5, 2.6, 2.7, 2.11, 2.12, 2.13

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:

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).

* *tens and ones*

1.5, 1.9, 1.12, 3.1, 3.4, 4.9

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

* *count by 5’s to 100, 10’s to 100, 100’s to 500 from 0*

2.10

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

* *numbers and number names to 100*

1.1

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.

* *comparing single-digit to double-digit numbers w/equations*

1.11

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.

* ***“poppers” for 10s and 100s; + and –***

NEED TO SUPPLEMENT

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

* ***adding 3 or 4 one-digit numbers***

3.4

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.

* ***(refer to #2 skip counting)***

1.9, 2.10

2.NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations.

* ***See 2.OA #1 and add a why to the problem they need to explain their work***

NEED TO SUPPLEMENT

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.

* ***Use number line to 50 to add and subtract***

1.1, 1.7, 1.8, 2.1

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

* ***Identify hour and minute hands***

3.3, 3.4

2.MD.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?*

* ***identify coins; find coin equivalents***

3.2

GENERAL ALIGNMENT WITH EVERYDAY MATHEMATICS

1.1, 1.3, 1.5, 1.7, 1.8, 1.9, 1.11, 1.12, 2.1, 2.2, 2.4, 2.5, 2.6, 2.7, 2.10, 2.11, 2.12, 2.13, 3.1, 3.2, 3.3, 3.4

SUPPLEMENTAL RESOURCES

COMMENTS

Quarter 2 – Grade 2

STANDARDS FOR MATHEMATICAL CONTENT:

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.

* **+/- double-digit w/single-digit, answer in end position to 100**

4.1, 4.2

2.OA.2. Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers.

* **+/- 9, +/- 10 within 20**

7.1

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.

* **identify even/odd group of objects to 20**

NEED TO SUPPLEMENT

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:

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).

* **100 + tens and ones**

3.1, 3.4, 4.9, 4.10

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

* **count by 10's starting at any number to 100 ex. 27, 37, 47, etc.**

3.6

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

* **expanded notation into the hundreds**

NEED TO SUPPLEMENT

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.

* **comparing double-digit to double-digit numbers w/equations**

NEED TO SUPPLEMENT

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.

* **two digit addition to 100**

3.6, 4.1, 4.2, 6.1

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

* **adding 2 two-digit numbers (partial sums)**

4.8, 4.9, 6.1

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**

3.6

2.NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations.

* **See 2.OA #1 and add a why to the problem they need to explain their work**

4.9, 4.10

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

* **Measure with a ruler to inches/centimeters**

4.7, 9.3

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.

*** **incorporate this standard into word problems from 2.OA #1 beginning with quarter 2 (follow the same progression)**

9.3

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

* **time to the hour and half hour/ identify time of day in terms of AM and PM**

3.3, 3.4, 4.9, 5.1, 12.1

2.MD.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?*

* **count like coins up to \$2.00**

3.2, 4.3, 4.6, 10.1, 10.2

GENERAL ALIGNMENT WITH EVERYDAY MATHEMATICS

3.1, 3.2, 3.3, 3.4, 3.6, 4.1, 4.2, 4.3(making coin booklets), 4.6, 4.7, 4.8, 4.9, 4.10, 5.1 (making clock concentration cards), 5.3 (pgs. 118-119), 6.1, 7.1, 7.2, 9.3, 10.1, 10.2, 12.1

SUPPLEMENTAL RESOURCES

COMMENTS

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Quarter 3 – Grade 2

STANDARDS FOR MATHEMATICAL CONTENT:

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.

* ***+/- double-digit w/double-digit, answer in end position to 100***

6.2, 6.3, 6.4

2.OA.2. Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers.

* ***double facts, double facts +/- 1 within 20***

2.3

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.

* ***represent an array up to 25***

6.6, 6.8, 6.9

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:

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).

* ***expanded notation for hundreds, tens, and ones***

NEED TO SUPPLEMENT

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

* ***count by 10’s and 100’s to 1,000 from 0***

7.1

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

* ***numbers and expanded notation to 500***

NEED TO SUPPLEMENT

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.

* ***comparing double-digit to three-digit numbers w/equations***

NEED TO SUPPLEMENT

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.

*** *two digit subtraction to 100***

6.5, 11.3

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

*** *adding 3 two-digit numbers***

6.1, 7.3

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 and decompose tens or hundreds.

*** *see #5-trade first subtraction***

NEED TO SUPPLEMENT

2.NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations.

*** *See 2.OA #1 and add a why to the problem they need to explain their work***

NEED TO SUPPLEMENT

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

*** *measure with a yard stick/meter stick/tape measure to feet and meters***

9.1

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

*** *estimate the length of an object in inches/and-or centimeters/yards/meters***

4.7, 7.6, 9.1

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.

***** *incorporate this standard into word problems from 2.OA #1 for each term (follow the same progression)***

NEED TO SUPPLEMENT

2MD.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.

*** *Use number line to 100 to add and subtract*** NEED TO SUPPLEMENT

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

* ***time to the quarter hour (15 minutes)***

NEED TO SUPPLEMENT

2.MD.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?*

* ***count a combination of coins/bills and record correct notation of dollars and cents***

6.6

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 the whole-number units.

* ***read a horizontal and vertical line plot***

7.8

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.

* ***Interpret data from picture and bar graphs / identify title, scale, scale label, categories, category label and data***

3.5, 6.3, 7.6, 7.8

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.

* ***identify and sort by attribute, describe and draw 2-dimensional shapes using terms "sides, vertices, angles, edges, face"***

5.1, 5.3, 5.4, 5.5

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

* ***count a partitioned rectangle***

9.7

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 fractions as part of a whole***

8.1, 8.2

GENERAL ALIGNMENT WITH EVERYDAY MATHEMATICS

2.3, 3.5, 4.7, 5.1, 5.3, 5.4, 5.5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.1, 7.3, 7.4, 7.6, 7.8, 8.1, 8.2, 9.1(measuring with yards/meters), 9.7, 11.3 (trade first)

SUPPLEMENTAL RESOURCES

COMMENTS

Quarter 4 – Grade 2

STANDARDS FOR MATHEMATICAL CONTENT:

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.

* ***+/- double-digit w/double-digit, answer in all positions to 100***

11.1, 11.2, 11.3

2.OA.2. Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers.

* ***all +/- facts within 20***

NEED TO SUPPLEMENT

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.

* ***write an equation to express an even number as a sum of two equal addends***

NEED TO SUPPLEMENT

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.

* ***represent an array up to 25; express with repeated addition***

11.4

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:

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).

* ***tens to 1,000 ex. How many 10's in 370? Answer:37***

10.8, 10.9

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

* ***count by 10's and 100's to 1,000 starting from any number***

NEED TO SUPPLEMENT

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

* ***numbers and expanded notation to 1,000***

NEED TO SUPPLEMENT

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.

* ***comparing three-digit to three-digit numbers w/equations***

NEED TO SUPPLEMENT

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.

* ***addition and subtraction to 100***

11.1, 11.2, 11.3

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

* ***adding 4 two-digit numbers***

NEED TO SUPPLEMENT

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 and decompose tens or hundreds.

* ***+/- to 1,000 w/concrete models (place value blocks)***

NEED TO SUPPLEMENT

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 100***

NEED TO SUPPLEMENT

2.NBT.9. Explain why addition and subtraction strategies work, using place value and the properties of operations.

* ***See 2.OA #1 and add a why to the problem they need to explain their work***

NEED TO SUPPLEMENT

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

* ***Explain which tool would be the better choice***

NEED TO SUPPLEMENT

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.

* ***Explain why two measurements of the same object are different depending on the unit of measure you are using (inches/centimeters)***

NEED TO SUPPLEMENT

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.

*** Explain the difference in length of two objects using units of measure (in, cm, ft, m) and using the terms (shorter, longer)**

NEED TO SUPPLEMENT

2.MD.5. 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.

***** incorporate this standard into word problems from 2.OA #1 for each term (follow the same progression)**

NEED TO SUPPLEMENT

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

*** time to the 5 minute**

12.1, 12.2, 12.7

2.MD.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?*

*** count a combination of coins (up to \$2.00) / (bills up to \$100.00) and record with correct notations**

NEED TO SUPPLEMENT

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 the whole-number units.

*** generate a horizontal and vertical line plot**

12.7

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.

*** generate a picture and bar graph/ label with title, scale, scale label, categories, category label and data**

12.6

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.

*** identify and sort by attribute, describe and draw 3-dimensional shapes using terms "sides, vertices, angles, edges, face"**

5.6, 5.7

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

* ***partition and count the squares in a rectangle***

10.7

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.

* ***create fractions within circles and rectangles (halves, thirds, quarters)***

8.1, 8.2, 8.3

GENERAL ALIGNMENT WITH EVERYDAY MATHEMATICS

5.6, 5.7, 7.9, 8.1, 8.2, 8.3, 10.1, 10.2, 10.5, 10.7, 10.8, 10.9, 11.1, 11.2, 11.3, 12.1(telling time), 12.2, 12.6(graphing), 12.7 (line plot/bar graph)

SUPPLEMENTAL RESOURCES

COMMENTS