

Math: Grading Benchmarks – Second Grade

Operations and Algebraic Thinking

Enduring Understanding: Students possess and understanding of addition and subtraction through modeling and manipulation of objective and apply these skills to solve problems.

Solves multistep word problems using addition within 100.

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

Trimester	1	2	3	4
1st	Student is rarely able to solve one-step word problems within 100 and solving for unknowns.	Student requires teacher prompting and support to solve one-step word problems within 100 and cannot solve problems with unknowns.	Student independently and consistently uses addition within 100 to solve two-step word problems. Solves problems with unknowns in all positions.	Student creates one-step word problems and writes equations with unknowns in all positions.
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Solves multistep word problems using subtraction within 100.

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

Trimester	1	2	3	4
1st	Student is rarely able to solve one-step word problems within 100 and solving for unknowns.	Student requires teacher prompting and support to solve one-step word problems within 100 using subtraction and cannot solve problems with unknowns.	Student independently and consistently uses subtraction within 100 to solve one-step word problems. Solves problems with unknowns in all positions.	Student creates one-step word problems and writes equations with unknowns in all positions.
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Fluently add facts with 20.

STANDARDS ADDRESSED: 2.OA.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.

MA.2.a. By the end of grade 2, know from memory related subtraction facts of sums of two one-digit numbers.

Trimester	1	2	3	4
1st	Student is rarely able to demonstrate addition fact fluency.	Student requires support (e.g. number line, touch math, fingers) to accurately demonstrate addition fact fluency.	Student independently and consistently uses mental strategies to demonstrate fluency of addition facts (sum of two one digit numbers).	
2 nd	Student is unable or rarely able to demonstrate addition fact fluency.	Student requires support (e.g. number line, touch math, fingers) to accurately demonstrate addition fact fluency.	Student consistently uses mental strategies to demonstrate fluency of addition facts (sum of two one digit numbers).	
3rd	Student is unable or rarely able to demonstrate addition fact fluency.	Student requires support (e.g. number line, touch math, fingers) to accurately demonstrate addition fact fluency.	Student consistently uses mental strategies to demonstrate fluency of addition facts (sum of two one digit numbers).	

Fluently subtract facts with 20.

STANDARDS ADDRESSED: 2.OA.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.

MA.2.a. By the end of grade 2, know from memory related subtraction facts of sums of two one-digit numbers.

Trimester	1	2	3	4
1st	Student is rarely able to demonstrate subtraction fact fluency.	Student requires support (e.g. number line, touch math, fingers) to accurately demonstrate subtraction fact fluency.	Student independently and consistently uses mental strategies to demonstrate fluency of subtraction facts (sum of two one digit numbers).	
2 nd	Student is unable or rarely able to demonstrate subtraction fact fluency.	Student requires support (e.g. number line, touch math, fingers) to accurately demonstrate subtraction fact fluency.	Student consistently uses mental strategies to demonstrate fluency of subtraction facts (sum of two one digit numbers).	
3rd	Student is unable or rarely able to demonstrate subtraction fact fluency.	Student requires support (e.g. number line, touch math, fingers) to accurately demonstrate subtraction fact fluency.	Student consistently uses mental strategies to demonstrate fluency of subtraction facts (sum of two one digit numbers).	

Identifies and represents odd and even numbers.

STANDARDS ADDRESSED: 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.

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Student is unable or rarely able to understand odd or even number and representing an even number as the sum of two equal addends.	Student requires support in determining whether a group of objects (up to 20) has an odd or even number of members. Requires support writing an equation representing an even number as the sum of two equal addends.	Student consistently determines whether a group of objects (up to 20) has an odd or even number of members. Writes an equation to represent an even number as the sum of two equal addends.	
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Uses addition to represent rectangular arrays (5x5).

STANDARDS ADDRESSED: 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.

Trimester	1	2	3	4
1st	Student is rarely able to use repeated addition to write an equation to find the numbers of objects in a rectangular array.	Student prompting and support to use repeated addition represent objects arranged in rectangular arrays.	Student independently and consistently uses repeated addition to write an equation to find the sum of objects arranged in rectangular arrays (up to 5 rows and 5 columns).	Student creates and writes two equations (by rows and columns) to represent the rectangular array. Students can rotate the array 90 degrees and write two more equations. Students can explain how the arrays are different but still the same.
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Numbers and Operations in Base Ten

Enduring Understanding: *Students will understand and explain what numbers mean, how they may be represented, and what relationships exist among them to accurately and efficiently perform computations.*

Understands and represents the place values of three-digit numbers.

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).

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

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Student is unable or rarely able to find the value of digits in a three-digit number.	Student requires teacher prompting and support to model three digit numbers and determine the value of digits in a three-digit number.	Student independently models three digit numbers in multiple ways, including expanded form, and makes connections between physical and symbolic representations of a number. Uses models to identify the value of their digits.	
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Counts within 1,000. Skip counts by 5s, 10s, and 100s within 1,000.

STANDARDS ADDRESSED:

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

Tri	1	2	3	4
1st	Student is rarely able to count within 1,000 and skip counting by 5s, 10s, and 100s within 1,000.	Student requires teacher prompting and support to count within 1,000 and skip count by 5s, 10s, and 100s within 1,000. Requires teacher support to make connections of 5 more and 10 more than a number.	Student independently and consistently counts within 1,000 and skip counts by 5s, 10s, and 100s within 1,000 Identifies 5 more or 10 more than a given number on a number line.	Student independently and consistently applies the standard and skip counts by 5s, 10s, and 100s within 1,000 from any given number.
2nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Compare two three-digit numbers based on meanings of the hundreds, tens and ones digits, using $>$, $=$ and $<$ symbols to record the results of comparisons.

STANDARDS ADDRESSED:

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.

Tri	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2nd	Student is unable or rarely able to read or compare three-digit numbers.	Student Requires teacher support to compare two three-digit numbers based on hundreds, tens, ones using $<$, $=$, $>$.	Student consistently compares two three-digit numbers based on hundreds, tens, ones using $<$, $=$, $>$.	Student compares two three-digit numbers based on hundreds, tens, ones using $<$, $=$, $>$ and explains the strategies used.
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Fluently adds and subtracts within 100 (no regrouping).

STANDARDS ADDRESSED:

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.

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

Tri	1	2	3	4
1 st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Student is unable or rarely able to fluently add and/or subtract within 100.	Student requires teacher prompting and support to use efficient methods when adding and subtracting within 100.	Student consistently uses efficient and accurate methods for computing sums and differences within 100. (place value, properties of operations, relationship between addition and subtraction) and is able to explain (using words, pictures or objects) how their strategy works.	Student independently applies standard and creates well-developed explicit written explanations supported by drawings and/or objects.
3 rd	Student is unable or rarely able to fluently add and/or subtract within 100.	Student requires teacher prompting and support to use efficient methods when adding and subtracting within 100.	Student consistently uses efficient and accurate methods for computing sums and differences within 100. (place value, properties of operations, relationship between addition and subtraction) and is able to explain (using words, pictures or objects) how their strategy works.	Student independently applies standard and creates well-developed explicit written explanations supported by drawings and/or objects.

Add within 1,000 with and without regrouping

STANDARDS ADDRESSED:

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

2.NBT.7 Add and subtract within 1,000, 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.

Tri	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2nd	Student is unable or rarely able to add within 1,000 with and without regrouping.	Student requires teacher prompting and support to use strategies to efficiently and accurately add up to 4 two-digit numbers and 2 three- digit numbers with and without regrouping.	Student consistently uses strategies (based on place value, properties of operations, relationship between addition and subtraction) to efficiently and accurately add up to 4 two-digit numbers and 2 three- digit numbers with and without regrouping.	Student independently applies the standard when solving word problems and is able to develop an explicit explanation of the strategy used.
3rd	Student is unable or rarely able to add within 1,000 with and without regrouping.	Student requires teacher prompting and support to use strategies to efficiently and accurately add up to 4 two-digit numbers and 2 three- digit numbers with and without regrouping.	Student consistently uses strategies (based on place value, properties of operations, relationship between addition and subtraction) to efficiently and accurately add up to 4 two-digit numbers and 2 three- digit numbers with and without regrouping.	Student independently applies the standard when solving word problems and is able to develop an explicit explanation of the strategy used.

Subtract within 1,000 with and without regrouping

STANDARDS ADDRESSED:

2.NBT.7 Add and subtract within 1,000, 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.

Tri	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2nd	Student is unable or rarely able to subtract within 1,000 with and without regrouping.	Student requires teacher prompting and support to use strategies to efficiently and accurately subtract 2 three-digit numbers with and without regrouping.	Student independently uses strategies (based on place value, properties of operations, relationship between addition and subtraction) to efficiently and accurately subtract 2 three-digit numbers with and without regrouping.	Student independently applies the standard when solving word problems and is able to develop an explicit explanation of the strategy used.
3rd	Student is unable or rarely able to subtract within 1,000 with and without regrouping.	Student requires teacher prompting and support to use strategies to efficiently and accurately subtract 2 three-digit numbers with and without regrouping.	Student independently uses strategies (based on place value, properties of operations, relationship between addition and subtraction) to efficiently and accurately subtract 2 three-digit numbers with and without regrouping.	Student independently applies the standard when solving word problems and is able to develop an explicit explanation of the strategy used.

Mentally add or subtract 10 or 100 to a given number.

STANDARDS ADDRESSED: *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.*

Tri	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2nd	Student is unable or rarely able to use mental math strategies to add or subtract 10 or 100 from any given number 100-900.	Student requires teacher prompting and support to use mental math strategies to add and subtract 10 or 100 from any given number 100-900.	Student consistently uses mental math strategies to add and subtract 10 or 100 from any given number 100-900.	Student independently applies mental math skills when solving complex word problems.
3rd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester

Measurement and Data

Enduring Understanding: *Students understand how to collect, represent, analyze, and interpret data gathered using a variety of tools.*

Measure and estimate lengths in standard units

STANDARDS ADDRESSED: **2MD1.** *Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.*

- 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.*
- Estimate lengths using units of inches, feet, centimeters, and meters.*
- Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.*

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to accurately measure and use appropriate tools and terms.	Student requires teacher prompting and support to make accurate measurements using appropriate tools and terms; and estimate lengths, and compare the difference in length	Student independently selects and uses appropriate tools for measuring. Measures twice and can see the relationship between the size of the units and measurement. Estimates lengths using inches, feet, centimeters, and meters. Determines the difference in the length of two objects using correct measurement notation.	Student applies the standard and extends this knowledge to present the solution in a more simplified form (1 foot instead of 12 inches). Clearly communicates the problem solving approach and reasoning through words and pictures using accurate complete representations.

Use addition and subtraction within 100 to solve word problems involving lengths.

STANDARDS ADDRESSED: 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.

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to use drawings or equations to solve measurement word problems involving length.	Student prompting and support to solve measurement word problems. Has trouble relating drawings to equations.	Student consistently uses drawings and equations to solve measurement word problems. The student refers to his/her drawings of the problem and correctly calculates the solution. They will use appropriate math language and correctly label his/her drawings.	Student applies the standard and demonstrates full understanding of the problem through clear visual representations and efficient calculations. The equations show more advanced knowledge of how to use fractional notation $5\frac{1}{2}'' + 5\frac{1}{2}'' = 11''$, and how to accurately represent calculations.

Use addition and subtraction within 100 to solve word problems involving lengths.

STANDARDS ADDRESSED: 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.

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to represent whole numbers, sums and differences within 100 on a number line diagram.	Student prompting and support to represent whole numbers, sums and differences within 100 on a number line diagram.	Student independently represents whole numbers, sums and differences within 100 on a number line diagram.	

Tells time to the nearest 5 minutes and applies time concepts (e.g. hours in a day).

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

MA.7.a. Know the relationships of time, including seconds in a minute, minutes in an hour, hours in a day, days in a week, a month, and a year; and weeks in a month and a year.

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to demonstrate knowledge of the relationships of time (e.g. hours in day).	Student prompting and support to demonstrate knowledge of the relationships of time (e.g. hours in a day).	Student independently demonstrates knowledge of the relationships of time (e.g. hours in a day).	

Solves problems using money (dollars, quarters, dimes, pennies).

STANDARDS ADDRESSED: 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?

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to solve one and two-step word problems involving money situations.	Student prompting and support to solve one- and two- step word problems involving money situations adding to, taking from and comparing.	Student independently adds and subtracts to solve one and two-step word problems involving money situations adding to, taking from, comparing with unknowns in all positions.	Student creates two step word problems involving money situations and write equations with unknown in all positions.

Generate measurement data and show the data on a line plot.

STANDARDS ADDRESSED: 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.

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to generate measurement data and show the data on a line plot.	Student prompting and support to generate measurement data and show the data on a line plot.	Student independently generates measurement data and shows the data on a line plot.	

Represent data by drawing picture/bar graphs (with single unit scale) with up to four categories and solves problems based on interpreting bar graphs.

STANDARDS ADDRESSED: 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,4 using information presented in a bar graph.

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to represent data in pictographs and bar graphs and unable to interpret data from bar graphs.	Student prompting and support to represent data in pictographs and bar graphs and solves problems interpreting data from bar graphs.	Student independently represents and solves problems interpreting data from bar graphs.	

Geometry

Enduring Understanding: *Students understand, explain, and apply the properties and relationships among and between geometric figures to appreciate the importance of geometry in our world.*

Uses the attributes of shapes to identify and draw triangles, quadrilaterals, pentagons, hexagons and cubes.

STANDARDS ADDRESSED: 2.G.1 *Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.*

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to the attributes of the pentagon, hexagon and cube.	Student requires teacher prompting and support to identify and draw the attributes of pentagon, hexagon and cube.	Student independently draws and describes the attributes (sides, angles, parallel sides) of the pentagon, hexagon and cube,	Student identifies and describes attributes (sides, angles, family, parallel sides) of the pentagon, hexagon and cube and makes comparisons among the shapes.

Partition shapes (circles, rectangles) into equal amounts.

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

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.*

Trimester	1	2	3	4
1st	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
2 nd	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester	Not assessed in this trimester
3rd	Student is unable or rarely able to understand the concept of equal shares and partitioning shapes into halves, thirds, fourths.	Student prompting and support to partition shapes into equal shares of halves, thirds, fourths.	Student independently partitions shapes into halves, fourths and describes the whole as two halves, three thirds, four fourths.	