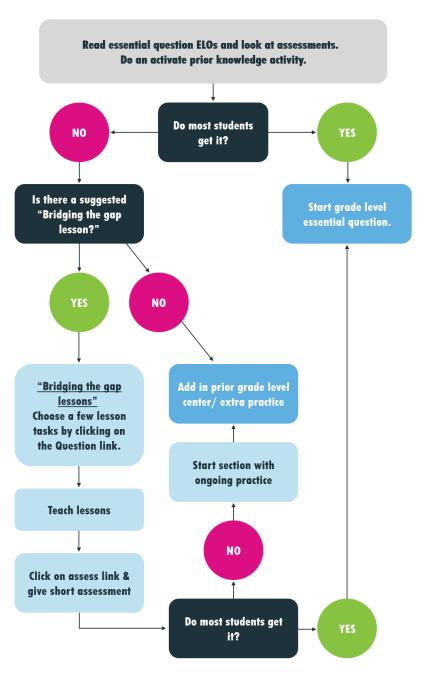
# Second Grade Year at a Glance 2023-24



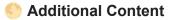
This is a guide to focus on priority standards and address prior knowledge skills necessary for coherence. **The target for all students is the grade level standard,** so this is meant to help you support all learners when entering a new topic.

When you start a new essential question, use this flowchart to help you plan according to your students' needs. Prior knowledge lessons are addressing prior grade level standards that students may need to access the grade level standard. These are meant to be used to meet individual needs (small groups, center activities, etc) so all students are successful with the grade level expectations. The goal is to provide "just in time" support to connect to the grade level standard. Making connections strengthens learning and helps avoid the idea that math is a subject of unrelated topics. No time is wasted on "just in case" teaching. More info here.



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□ Supporting Content



2nd grade map	Report Card Crosswalk Learning Targets Checklist
Question & Suggested Pacing	Standards & notes
Start of the Year: Growth Mindset 1 Week	This is important to build community and relationships as well as establish math expectations & growth mindsets.  Growth Mindset Lessons, Activities and Videos to use as you lay the groundwork for a Mathematical Mindset connected to The 8 Standards for Mathematical Practice.  Begin launching Guided Math:  For assistance on structuring guided math, click here. Guide to the first 20 days here.
Question 1: How can our understanding of number sense help us solve addition/ subtraction problems within 10? Review fact fluency with +/- 1, 0, 2 and begin combinations to make ten.  2 weeks- T1  Priority Standards: 2.OA.2	Activate prior knowledge: 1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 - 4 = 13 - 3 - 1 = 10 - 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 - 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).  1.OA.C.6 Making a Ten (See Standard 1.OA.C.6 for a list of mental strategies)  1.OA.C.7 Determine equality sentences  1.OA.6 assess  Activate prior knowledge: 1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.  **Mastering the Basic Facts in Addition and Subtraction by Susan O'Connnell contain these strategies. Resources here  1.OA.1 Solving story problems within 20  1.OA.1 assess  1.OA.B.2 Fluently add and subtract within 20 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.  2.OA.C.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.

#### Question 2:

How does our understanding of place value help us count, represent and compare numbers to 1,000?

Practice fact fluency (+/-) within 10 and begin doubles.

3-4 weeks- T1

**Activate prior knowledge:** 1.NBT.1-3 Understand that the two digits of a two-digit number represent amounts of tens and ones. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.

- 1.NBT.B.2 Numbers from 11 to 19 are composed of a ten and ones.
- 1.NBT.A.1 Counting to 120, starting at any number less than 120.
- 2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members
- 1.NBT assess
- 2.NBT.A.1a100 can be thought of as a bundle of ten tens called a "hundred."
- 2.NBT.A.1b 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.A.2 Count within 1000; skip-count by 5s, 10s, and 100s
- 2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- 2.NBT.A.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.

### Question 3:

How can we use addition/subtraction strategies to solve problems within 100? Continue doubles (+/-) and begin +/-10.

6 weeks-T1/2

# Priority Standards: 2.OA.1

2.NBT.5 2.NBT.9

# Activate prior knowledge:

1.NBT.B.2 <u>Understanding two digit numbers with tens and ones</u>

Ensure word problems represent all grade 2 <u>problem types</u>, and refer to guidance for 2.OA.A.

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

It is important to have students focus on the context of the word problem and using <u>Numberless Word Problems</u> will help.

## Question 4:

How does our understanding of place value help us solve number problems within 1,000?

Continue fact fluency (+/-) within 10 and begin using/ bridging 10.

3-4 weeks- T2

### **Priority Standards:**

2.NBT.6 2.NBT.7 2.NBT.8 2.NBT.9 **Activate prior knowledge:** 1.NBT.4-6 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, 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 and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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 and explain the reasoning used.

- 1.NBT.C.4 Two Digit Plus One Digit Adding
- 1.NBT.C.5 Mentally find 10 more or 10 less
- 1.NBT.C.6 Subtracting Tens
- 1.OA.A.1 Story problems within 20
- 1.OA.B.4 <u>Subtraction with change unknown</u>
- 2.NBT.A.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
- 1.NBT assess

Ensure word problems represent all grade 2 problem types, and refer to guidance for 2.OA.A.

- 2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.
- 1 2.NBT.B.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.
- 2.NBT.B.8 Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- 2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.

Question 5: How do we measure time and money? 3 wks- T2	Activate prior knowledge: 1.MD.B.3 <u>Time Bingo</u> <u>Making a clock</u> 2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.  2.MD.C.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?
Question 6: How do we use standard tools to measure, compare, and estimate lengths? Continue using/bridging 10 and begin near doubles.  3 weeks- T2	Activate prior knowledge: 1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.  1.MD.A.2 Express the length of an object as a whole number of length units.  1.MD.2 assess  1.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes  1.MD.A.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.  1.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.
Question 7: How do we use addition/subtraction to compare lengths?  3 weeks- T3  Priority Standards: 2.OA.2 2.MD.5 2.MD.6	Activate prior knowledge:  2.MD.A.3 <u>Estimating and Measuring</u> 1.OA.C.6 <u>Addition and subtraction within 20.</u> I 2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.  Ensure word problems represent all grade 2 <u>problem types</u> , and refer to guidance for 2.OA.A.  I 2.MD.B.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.  I 2.MD.B.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.  I 2.OA.B.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.

Question 8: How do we use data to create graphs and solve addition/ subtraction problems? ? 1-2 wks - T3	Activate prior knowledge: 1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another  1.MD.C.4 Weather Graph Data  1.MD.4 assess  2.MD.D.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.  2.MD.D.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.
Question 9: How can attributes help us identify and create shapes? 1-2 wks- T3	Activate prior knowledge: 1.G.A.1  1.G.A.1 <u>understanding shapes based on attributes</u> 2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Question 10: How can we partition shapes into equal parts? 1-2 wks- T3	Activate prior knowledge: 1.GA.2, 1.GA.3  1.GA.2 Make Your Own Puzzle What Can You Make With a Square  1.GA.3 Halves and Fourths Brownie Party  2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.  2.G.A.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.
Question 11: How can we use mathematical strategies to understand concepts of multiplication? 1-2 wks- T3	Activate prior knowledge: 1.OA.D.7  1.OA.D.7 understanding equal sign correctly  2.OA.C.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.  2.OA.C.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.