

Number Corner Grade 2 Correlations to Common Core State Standards

Common Core State Standards for Mathematics, Grade 2

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

(1) Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).

(2) Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.

(3) Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.

(4) Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Grade 2 Overview

Operations & Algebraic Thinking

- Represent and solve problems involving addition and subtraction.
- Add and subtract within 20.
- Work with equal groups of objects to gain foundations for multiplication.

Number & Operations in Base Ten

- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

Measurement and Data

- Measure and estimate lengths in standard units.
- Relate addition and subtraction to length.
- Work with time and money.
- Represent and interpret data.

Geometry

- Reason with shapes and their attributes.

Mathematical Practices

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.

Taken from the Common Core State Standards for Mathematics 2010, pages 17 & 18.

Number Corner Grade 2 Correlations to Common Core State Standards

OPERATIONS AND ALGEBRAIC THINKING 2.OA			
Standard	Number Corner	Bridges Supplement	Assessments
Represent and solve problems involving addition and subtraction.			
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	May Coin Collector		Formal Number Corner Baseline Assessment (Available on MLC web site)
Add and subtract within 20.			
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.	October Magnetic Tile January–March Base Ten Bank January Workout Wheel February Workout Wheel March Workout Wheel May Workout Wheel		Formal Number Corner Baseline Assessment (Available on MLC web site) Number Corner Student Book, pp 9–10, 36–38, 55–58 (Checkups 1, 2, 3)
Work with equal groups of objects to gain foundations for multiplication.			
3a. 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;	Sept. Daily Number Chart October Daily Number Chart October Magnetic Tile		
3b. write an equation to express an even number as a sum of two equal addends.	October Magnetic Tile		
4a. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns;	September Magnetic Tile October Magnetic Tile November Magnetic Tile Nov. Daily Number Chart		
4b. write an equation to express the total as a sum of equal addends.	October Magnetic Tile November Magnetic Tile Nov. Daily Number Chart Dec. Daily Number Chart		

Number Corner Grade 2 Correlations to Common Core State Standards (cont.)

NUMBER AND OPERATIONS IN BASE TEN 2.NBT			
Standard	Number Corner	Bridges Supplement	Assessments
Understand place value.			
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.”	October Daily Number Chart November Hundreds Grid		Formal Number Corner Student Book, pp 9–10, 36–38 (Checkups 1 & 2)
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. Count within 1000; skip-count by 5s, 10s, and 100s.	September Hundreds Grid October Hundreds Grid December Hundreds Grid March Hundreds Grid April Hundreds Grid		Formal Number Corner Baseline Assessment (Available on MLC web site) Number Corner Student Book, pp 9–10, 36–38, 55–58 (Checkups 1, 2, 3)
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	September Hundreds Grid October Hundreds Grid December Hundreds Grid March Hundreds Grid April Hundreds Grid		Formal Number Corner Student Book, pp 55–58 (Checkup 3)
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.	December Magnetic Tile January Magnetic Tile		
Use place value understanding and properties of operations to add and subtract.			
5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	December Hundreds Grid January–April Base Ten Bank	Set A5 Number & Operations: Multi-Digit Addition & Subtraction, Activity 4	
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.			

Number Corner Grade 2 Correlations to Common Core State Standards (cont.)

NUMBER AND OPERATIONS IN BASE TEN 2.NBT			
Standard	Number Corner	Bridges Supplement	Assessments
Use place value understanding and properties of operations to add and subtract.			
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.		Set A5 Number & Operations: Multi-Digit Addition & Subtraction, Activity 4	Informal Bridges Practice Book, pp 62, 85, 86, 118, 130, 131, 133, 135, 137, 140, 142
8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.			
9. Explain why addition and subtraction strategies work, using place value and the properties of operations.	January–April Base Ten Bank	Set A5 Number & Operations: Multi-Digit Addition & Subtraction, Activity 4	Formal Number Corner Student Book, pp 36–38, 55–58 (Checkups 2, 3)

MEASUREMENT AND DATA 2.MD			
Standard	Number Corner	Bridges Supplement	Assessments
Measure and estimate lengths in standard units.			
1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.			Formal Number Corner Student Book, pp 36–38 (Checkup 2)
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.	November Daily Measure		
3. Estimate lengths using units of inches, feet, centimeters, and meters.			
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.			

Number Corner Grade 2 Correlations to Common Core State Standards (cont.)

MEASUREMENT AND DATA 2.MD			
Standard	Number Corner	Bridges Supplement	Assessments
Relate addition and subtraction to length.			
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.			
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.			
Work with time and money.			
7a. Tell and write time from analog and digital clocks to the nearest five minutes	October Bean Clock December Bean Clock March Bean Clock April Bean Clock		Formal Number Corner Student Book, pp 9–10, 36–38, 85–88 (Checkups 1, 2, 4)
7b. Tell time using a.m. and p.m.			
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?	September Coin Collector October Coin Collector February Coin Collector March Coin Collector May Coin Collector		
Represent and interpret data.			
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.			
10a. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories.	December Magnetic Tile January Magnetic Tile		
10b. Solve simple put together, take-apart, and compare problems using information presented in a bar graph.			

Number Corner Grade 2 Correlations to Common Core State Standards (cont.)

GEOMETRY 2.G			
Standard	Number Corner	Bridges Supplement	Assessments
Reason with shapes and their attributes.			
1a. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.	December Calendar Grid May Calendar Grid		Formal Number Corner Student Book, pp 85–88 (Checkup 4)
1b. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	December Calendar Grid		Formal Number Corner Student Book, pp 85–88 (Checkup 4)
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	Sept.–Nov. Magnetic Board		
3a. 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.	Dec–Jan Magnetic Board March Calendar Grid		
3b. Recognize that equal shares of identical wholes need not have the same shape.	January Calendar Grid		