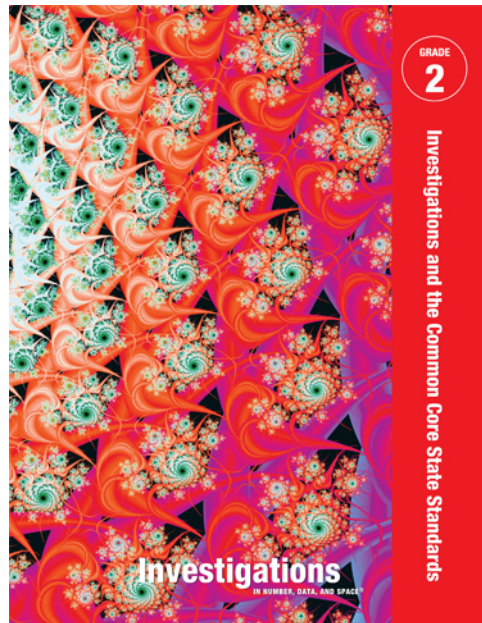


A Correlation of

SCOTT FORESMAN  
**Investigations**  
IN NUMBER, DATA, AND SPACE®

©2012



to the

**Common Core State Standards  
for Mathematics**

**Grade 2**

# **A Correlation of Investigations in Number, Data, and Space, ©2012 to the Common Core State Standards for Mathematics**

## **Introduction**

This document demonstrates how *Investigations in Number, Data, and Space* ©2012 meets the indicators of the Common Core State Standards for Mathematics, Grade 2. Correlation references are to the unit number and are cited at the session level. This correlation includes Classroom Routines but does not include ongoing review in Daily Practice and Homework.

*Investigations in Number, Data, and Space* supports students in making sense of mathematics and becoming mathematical thinkers. The program is designed to help all elementary children understand the fundamental ideas underlying number and arithmetic, geometry, data, measurement, and algebraic thinking. Students are encouraged to reason mathematically, develop problem-solving strategies, and represent their thinking using models, diagrams, and graphs. In addition to engaging the range of math learners, *Investigations* communicates mathematics content and pedagogy to teachers, offering them greater support built into every lesson, so that all students are successful.

Each grade level consists of a set of units, presented through investigations that involve students in the exploration of major mathematical ideas. Students gain a greater understanding of math, with meaningful practice and review that result in computational fluency. They build a greater foundation for algebra that prepares them for the challenges in middle and high school math courses.

Approaching the mathematics content through investigations helps student develop flexibility and confidence in approaching problems, fluency in using mathematical skills and tools to solve problems, and proficiency in evaluating their solutions. Students also build a repertoire of ways to communicate about their mathematical thinking, while their enjoyment and application of mathematics grows.

### **New to the program for the Common Core State Standards**

INVESTIGATIONS AND THE COMMON CORE STATE STANDARDS Resource Book contains:

- Overview of the Common Core State Standards and Investigations
- Alignment to the Standards for Mathematical Practice
- Correlation to the Standards for Mathematical Content
- Instructional Plan for each Unit
- New Teacher Material for each Unit
- Common Core Student Activity Black Line Masters

**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

**Curriculum Units**

**Grade 2**

**U1** Counting, Coins, and Combinations

**U2** Shapes, Blocks, and Symmetry

**U3** Stickers, Number Strings, and Story Problems

**U4** Pockets, Teeth, and Favorite Things

**U5** How Many Floors? How Many Rooms?

**ICCG:** Investigations and the Common Core State Standards Guidebook

**U6** How Many Tens? How Many Ones?

**U7** Parts of a Whole, Parts of a Group

**U8** Partners, Teams and Paper Clips

**U9** Measuring Length and Time

**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

Common Core State Standards for Mathematics Grade 2	Investigations in Number, Data, and Space, ©2012 Grade 2
<b>Operations and Algebraic Thinking 2.OA</b>	
<b>Represent and solve problems involving addition and subtraction.</b>	
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.OA.1.]	<b>U1 Sessions:</b> 1.1, 2.1, 2.2, 2.3, 2.4, 2.6, 2.7, 2.8, 4.1, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9 <b>U2 Sessions:</b> 1.1, 1.2, 2.1, 2.4, 2.7 <b>U3 Sessions:</b> 1.1, 1.3, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 4.4 <b>U3 ICCG:</b> 2.5A <b>U5 Session:</b> 1.5 <b>U8 Sessions:</b> 1.1, 1.2, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2, 4.3, 4.4
<b>Add and subtract within 20.</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. (See standard 1.OA.6 for a list of mental strategies.) [2.OA.2.]	<b>U1 Sessions:</b> 1.1, 1.4, 1.5, 2.2, 2.4, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2, 4.3, 4.4, 4.6, 4.7 <b>U2 Sessions:</b> 1.1A, 1.1, 1.2, 1.4, 2.1, 2.4, 2.5, 2.6, 2.7 <b>U2 ICCG:</b> 2.10A <b>U3 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.4, 4.3, 4.4 <b>U3 ICCG:</b> 2.5A <b>U4 Sessions:</b> 1.1, 2.1, 2.2 <b>U4 ICCG:</b> 1.4A <b>U5 Sessions:</b> 1.1 <b>U6 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 2.2, 2.4, 2.5 <b>U8 Sessions:</b> 1.4, 2.1, 2.2 <b>U9 Session:</b> 1.1A <b>U9 ICCG:</b> 2.5A
<b>Work with equal groups of objects to gain foundations for multiplication.</b>	
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.3.]	<b>U3 Sessions:</b> 3.1, 3.2, 3.3 <b>U5 Sessions:</b> 2.2 <b>U6 Session:</b> 3.1 <b>U8 Sessions:</b> 1.1, 1.2, 1.3, 1.4

**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

Common Core State Standards for Mathematics Grade 2	Investigations in Number, Data, and Space, ©2012 Grade 2
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. [2.OA.4.]	<b>U1 Sessions:</b> 3.2, 3.3, 3.4, 4.5, 4.7, 4.8, 4.9 <b>U2 Sessions:</b> 1.2, 1.3, 2.4, 2.5, 2.6 <b>U2 ICCG:</b> 2.10A <b>U3 Sessions:</b> 1.2, 1.6, 2.2, 2.4, 3.3, 4.1 <b>U5 Sessions:</b> 1.1, 1.2, 1.3, 1.4
<b>NBT Number and Operations in Base Ten 2.NBT</b>	
<b>Understand place value.</b>	
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: [2.NBT.1.]	<b>U6 Session:</b> 5A.3
a. 100 can be thought of as a bundle of ten tens — called a “hundred.” [2.NBT.1.a.]	<b>U6 Session:</b> 2.4 <b>U8 Sessions</b> <b>U8 ICCG:</b> 5A.3, 5A.4
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.1.b.]	<b>U6 Sessions</b> <b>U6 ICCG:</b> 5A.2, 5A.3, 5A.4, 5A.5
2. Count within 1000; skip-count by 5s, 10s, and 100s. [2.NBT.2.]	<b>U1 Sessions:</b> 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.5, 2.6, 2.7, 2.8 <b>U2 Sessions:</b> 1.3, 2.8 <b>U3 Sessions:</b> 1.4, 3.1, 3.3, 3.4, 3.5, 3.6, 3.7, 4.1, 4.2, 4.3, 4.5 <b>U4 Sessions:</b> 1.2, 2.1, 2.4 <b>U5 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5 <b>U6 Sessions:</b> 1.3, 3.5, 4.1, 4.2, 4.3 <b>U6 ICCG:</b> 5A.1, 5A.4 <b>U7 Sessions:</b> 1.1, 2.1 <b>U8 Session:</b> 5A.1 <b>U8 ICCG:</b> 5A.1
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. [2.NBT.3.]	<b>U1 Session:</b> 2.3 <b>U5 Sessions:</b> 1.2, 1.5 <b>U6 Sessions</b> <b>U6 ICCG:</b> 5A.2, 5A.3, 5A.4, 5A.5

**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

Common Core State Standards for Mathematics Grade 2	Investigations in Number, Data, and Space, ©2012 Grade 2
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. [2.NBT.4.]	<b>U6 Sessions</b> <b>U6 ICCG:</b> 5A.2, 5A.3, 5A.4, 5A.5
<b>Use place value understanding and properties of operations to add and subtract.</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.5.]	<b>U1 Sessions:</b> 3.5, 4.3, 4.4, 4.5 <b>U3 Sessions:</b> 1.1, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 4.3, 4.4, 4.5, 4.6 <b>U3 ICCG:</b> 2.5A <b>U4 Sessions:</b> 1.1, 1.2, 1.7, 2.3, 2.6, 2.7 <b>U5 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.2, 2.3 <b>U6 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 4.1, 4.4 <b>U7 Sessions:</b> 1.2, 1.4, 2.2, 2.4, 2.5 <b>U8 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 3.3, 3.4, 3.5, 4.1, 4.2, 4.3, 4.4 <b>U9 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 3.1, 3.2, 3.3, 3.5
6. Add up to four two-digit numbers using strategies based on place value and properties of operations. [2.NBT.6.]	<b>U3 Session:</b> 2.1 <b>U5 Session:</b> 1.4 <b>U6 Sessions:</b> 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 <b>U6 ICCG:</b> 5A.3 <b>U8 Sessions:</b> 4.1, 4.2, 4.3, 4.4
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.7.]	<b>U1 Sessions:</b> 4.1, 4.3, 4.4, 4.5 <b>U8 Sessions</b> <b>U8 ICCG:</b> 5A.1, 5A.2, 5A.3, 5A.4, 5A.5
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.8.]	<b>U6 Sessions</b> <b>U6 ICCG:</b> 5A.1, 5A.2, 5A.3, 5A.4, 5A.5

**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

Common Core State Standards for Mathematics Grade 2	Investigations in Number, Data, and Space, ©2012 Grade 2
9. Explain why addition and subtraction strategies work, using place value and the properties of operations. ( <i>Explanations may be supported by drawings or objects.</i> ) [2.NBT.9.]	<b>U1 Session:</b> 2.6 <b>U3 Session:</b> 2.6 <b>U6 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 2.5, 2.6 <b>U8 Sessions:</b> 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 4.4
<b>Measurement and Data 2.MD</b>	
<b>Measure and estimate lengths in standard units.</b>	
1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. [2.MD.1.]	<b>U9 Sessions:</b> 1.1, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5
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. [2.MD.2.]	<b>U9 Sessions:</b> 1.2, 1.4, 1.5, 1.6, 3.1, 3.3, 3.5 <b>U9 ICCG:</b> 3.6A
3. Estimate lengths using units of inches, feet, centimeters, and meters. [2.MD.3.]	<b>U9 Sessions:</b> 3.2, 3.3, 3.4
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. [2.MD.4.]	<b>U9 Sessions:</b> 1.4, 1.5, 1.6, 2.2, 3.2, 3.4
<b>Relate addition and subtraction to length.</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. [2.MD.5.]	<b>U9 Sessions:</b> 1.5, 1.6, 2.2, 2.3, 3.2, 3.5
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. [2.MD.6.]	<b>U1 Sessions:</b> 1.3, 1.4, 1.5, 2.1, 2.4, 3.2, 3.3 <b>U3 Sessions:</b> 1.4, 2.4, 4.3 <b>U6 Sessions:</b> 1.3, 1.4, 2.4, 2.6, 3.2, 4.3 <b>U8 Sessions:</b> 2.1, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.4

**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

Common Core State Standards for Mathematics Grade 2	Investigations in Number, Data, and Space, ©2012 Grade 2
<b>Work with time and money.</b>	
7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. [2.MD.7.]	<p><b>U1 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.3, 2.4, 2.5, 2.7, 3.1, 3.5, 4.2, 4.3</p> <p><b>U2 Sessions:</b> 1.4, 2.2, 2.5, 2.9</p> <p><b>U3 Sessions:</b> 1.5, 2.3, 2.5, 2.7, 3.2, 3.6, 4.2</p> <p><b>U4 Sessions:</b> 1.3A, 2.2, 2.5, 2.8</p> <p><b>U5 Sessions:</b> 1.3, 2.1, 2.4</p> <p><b>U6 Sessions:</b> 2.2, 2.5, 3.2, 3.6, 4.3</p> <p><b>U6 ICCG:</b> 5A.5</p> <p><b>U7 Sessions:</b> 1.3, 2.3, 2.6</p> <p><b>U8 Sessions:</b> 1.3, 3.2, 3.4, 4.4</p> <p><b>U9 Sessions:</b> 1.6, 2.3, 3.4</p> <p><b>U9 ICCG:</b> 3.6A</p>
8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. [2.MD.8.]	<p><b>U1 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.3, 2.4, 2.5, 2.7, 3.1, 3.5, 4.2, 4.3</p> <p><b>U2 Sessions:</b> 1.4, 2.2, 2.5, 2.9</p> <p><b>U3 Sessions:</b> 1.5, 2.3, 2.5, 2.7, 3.2, 3.6, 4.2</p> <p><b>U4 Sessions:</b> 1.3A, 2.2, 2.5, 2.8</p> <p><b>U5 Sessions:</b> 1.3, 2.1, 2.4</p> <p><b>U6 Sessions:</b> 2.2, 2.5, 3.2, 3.6, 4.3, 5A.5</p> <p><b>U7 Sessions:</b> 1.3, 2.3, 2.6</p> <p><b>U8 Sessions:</b> 1.3, 3.2, 3.4, 4.4</p> <p><b>U9 Sessions:</b> 1.6, 2.3, 3.4</p> <p><b>U9 ICCG:</b> 3.6A</p>
<b>Represent and interpret data.</b>	
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.9]	<b>U9 Session:</b> 1.5



**A Correlation of Investigations in Number, Data, and Space, ©2012  
to the Common Core State Standards for Mathematics**

Common Core State Standards for Mathematics Grade 2	Investigations in Number, Data, and Space, ©2012 Grade 2
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. [2.MD.10.]	<b>U4 Sessions:</b> 1.7, 2.3, 2.5, 2.6 <b>U4 ICCG:</b> 1.4A <b>U5 Session:</b> 2.3
<b>Geometry 2.G</b>	
<b>Reason with shapes and their attributes.</b>	
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. ( <i>Sizes are compared directly or visually, not compared by measuring.</i> ) [2.G.1.]	<b>U1 Session:</b> 1.2 <b>U2 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.5, 2.7, 2.8, 2.9 <b>U4 Sessions:</b> 1.2 <b>U4 ICCG:</b> 1.3A <b>U5 Sessions:</b> 1.5, 1.6 <b>U6 Sessions:</b> 1.4, 2.6
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. [2.G.2.]	<b>U2 Sessions:</b> 2.3, 2.4, 2.6, 2.8 <b>U2 ICCG:</b> 2.10A
3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i> , <i>thirds</i> , <i>half of</i> , <i>a third of</i> , 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. [2.G.3.]	<b>U7 Sessions:</b> 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6 <b>U7 ICCG:</b> 2.3A