

A Correlation of

INVESTIGATIONS

IN NUMBER, DATA, AND SPACE®



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To the
**Indiana Academic Standards
for Mathematics (2014)
Grade 1**

**A Correlation of Investigations 3 in Number, Data, and Space, ©2017
to the Indiana Academic Standards for Mathematics (2014)**

Introduction

This document demonstrates how *Investigations 3* in Number, Data, and Space, ©2017, aligns to the Indiana Academic Standards for Mathematics (2014), Grades K-5. Correlation references are to the Sessions of Investigations 3.

Investigations in Number, Data, and Space® 3rd Edition, known as Investigations 3, maintains the standard of excellence as a focused and coherent program that supports students to make sense of mathematical ideas and supports their teachers to make sense of both mathematics content and student thinking.

The guiding principles from *Investigations 2*nd Edition are maintained in *Investigations 3*. These guiding principles are:

- 1) Students have mathematical ideas and are given the opportunity to learn in an environment that focuses on making sense of mathematics. Students build on the ideas they already have and learn about new mathematics they have never encountered.
- 2) Teachers are engaged in ongoing learning about mathematics content, pedagogy, and student learning.
- 3) Teachers collaborate with the students and use the curriculum to maintain a clear, focused, and coherent agenda for mathematics teaching.

Investigations 3 ensures that its instructional approach works in a wide variety of classrooms. It maintains full availability for classrooms that use print materials and provides access to digital enhancements for both teachers and students in classrooms with regular or periodic access to those technologies.

Investigations 3 offers digital tools and technologies to enhance its research-based, field tested, and proven instructional model. These tools provide teachers with easy access to the professional development materials that are a hallmark of the program, support classroom management tasks, and help students capture and share their work.

Core program resources for teaching and learning will be made available on Savvas' latest learning management system, Savvas Realize™.

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Grade 1 Units

Unit 1 - Building Numbers and Solving Story Problems

Unit 2 - Comparing and Combining Shapes

Unit 3 - How Many of Each? How Many in All

Unit 4 - Fish Lengths and Fraction Rugs

Unit 5 - Number Games and Crayon Problems

Unit 6 - Would You Rather Be an Eagle or a Whale?

Unit 7 - How Many Tens? How Many Ones?

Unit 8 - Blocks and Buildings

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Indiana Academic Standards for Mathematics (2014) Grade 1	Investigations 3 in Number, Data, and Space Grade 1, ©2017
NUMBER SENSE	
1.NS.1: Count to at least 120 by ones, fives, and tens from any given number. In this range, read and write numerals and represent a number of objects with a written numeral.	Unit 1: Investigation 1, 3.6 Unit 2: 2.3 Unit 3: Investigation 4 Unit 4: CR 1.2, CR 1.4, CR 1.6, CR 2.3 Unit 5: CR 1.3, CR 1.3, CR1.5, CR 1.8, CR 2.1, CR 2.3, CR 2.5, CR 2.7, CR 3.1, CR 3.3, CR 3.4, CR 3.5, CR 3.6, CR 3.7 Unit 6: CR 1.3, CR 1.5, CR 2.2, CR 2.3 Unit 7: 1.3, 1.4, 1.5, 1.6, 1.7, 1.8 Investigation 2, Investigation 3
1.NS.2: Understand that 10 can be thought of as a group of ten ones — called a “ten.” Understand that the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	Unit 1: 1.3, 1.4, 1.5 Unit 2: CR 1.3, CR 1.6, CR 2.5 Unit 3: 1.2, 1.4, CR 2.1, CR 2.4, 2.4, CR 2.8, CR 3.65, 4.1, CR 4.2, 4.4, CR 4.4, CR 4.6 Unit 4: CR 1.2, CR 1.4, CR 1.6, CR 2.3 Unit 5: CR 1.4, CR 1.6, 2.1, CR 2.2, 2.3, CR 2.6, CR 3.3, CR 3.4, CR 3.5 Unit 6: 1.1, CR 1.1, CR 1.2, CR 1.4, CR 1.6, CR 1.7, CR 1.9 Unit 7: 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, Investigation 2, Investigation 3
1.NS.3: Match the ordinal numbers first, second, third, etc., with an ordered set up to 10 items.	This standard is outside the scope of Investigations 3.
1.NS.4: Use place value understanding to compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	Unit 1: 2.5, 3.6, CR 3.7 Unit 2: CR 1.1, CR 1.2, CR 1.5, CR 1.7, CR 2.2 Unit 3: CR 1.2, CR 1.3, CR 2.1, CR 2.2, CR 2.4, CR 2.6, CR 2.8, 3.3, CR 3.3, 3.4, CR 3.5, CR 4.1, CR 4.2, CR 4.4, CR 4.5, CR 4.6, CR 4.7, CR 4.8 Unit 4: CR 1.2, CR 1.4, CR 1.6, CR 2.3 Unit 7: 1.6, 2.2, 2.4, 2.5, 2.6, 2.7, 2.8
1.NS.5: Find mentally 10 more or 10 less than a given two-digit the number without having to count, and explain the thinking process used to get the answer.	Unit 7: 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 2.5, 2.6, 2.7, 2.8, Investigation 3

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1.NS.6: Show equivalent forms of whole numbers as groups of tens and ones, and understand that the individual digits of a two-digit number represent amounts of tens and ones.	Unit 1: 1.3, 1.5 Unit 2: CR 1.3, CR 1.6, CR 2.5 Unit 3: 1.2, 1.4 Unit 4: CR 1.2, CR 2.3 Unit 5: 2.1, 2.3, CR 3.3, CR 3.4, CR 3.5 Unit 7: 1.3, 1.4, 1.5, 1.6, 1.7, 2.1, 2.2, 2.3, 2.6, 3.2
COMPUTATION AND ALGEBRAIC THINKING	
1.CA.1: Demonstrate fluency with addition facts and the corresponding subtraction facts within 20. 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 $6 + 6 + 1 = 12 + 1 = 13$). Understand the role of 0 in addition and subtraction.	Unit 1: Investigation 2, Investigation 3 Unit 2: 1.1, 1.2, 1.3, 1.4 Unit 3: Investigation 1, Investigation 2, Investigation 3, 4.8 Unit 4: 1.5, 1.6, 1.7, 1.8, 2.6 Unit 5: Investigation 1, Investigation 2, Investigation 3 Unit 6: Investigation 1, CR 1.3, CR 1.5, CR 2.2, CR 2.3, 2.3 Unit 7: 1.1, 1.2, 1.3, 2.1, 2.2, 2.4, 2.5
1.CA.2: Solve real-world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	Unit 1: 1.4, 1.5, Investigation 2, Investigation 3 Unit 2: CR 1.3, CR 1.6, CR 2.5 Unit 3: 1.1, 1.3, 1.4, 2.1, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, 3.2, 3.6 Unit 4: 1.5, 1.6, 1.7, 1.8, 2.6 Unit 5: 1.1, 1.5, 1.6, 1.7, 1.8, 2.3, 2.4, 2.6, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7 Unit 6: Investigation 1, 2.3 Unit 7: 1.1, CR 1.1, 1.2, CR 1.2, 1.3, CR 1.3
1.CA.3: Create a real-world problem to represent a given equation involving addition and subtraction within 20.	The opportunity to address this objective is available. See the following: Unit 1: 2.4, 2.6, 3.2, 3.4, 3.7 Unit 3: 1.4, 2.5, 3.1, 3.2 Unit 4: 1.7, 1.8 Unit 5: 1.5, 1.8, 2.4, 2.6, 3.4, 3.5 Unit 6: 1.3, 1.5, 1.7, 1.8, 1.9, 2.3

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1.CA.4: Solve real-world problems that call for addition of three whole numbers whose sum is within 20 (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	Unit 1: 2.3, 2.5, 2.6, 2.7, 2.8, 3.2, 3.3, 3.4, 3.6, 3.7 Unit 2: 1.3 Unit 3: 1.1, 1.3, 1.4, CR 2.3, CR 2.5, 3.1, CR 3.1, CR 3.2, CR 3.4, 3.6, CR 3.6 Unit 4: CR 1.2, CR 1.4, 1.6, CR 1.6, CR 2.3 Unit 5: 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 2.1, 2.2, 2.3, 2.4, 2.6, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 Unit 6: Investigation 2 Unit 7: 1.1, 1.2, 1.6, 1.7, 1.8
1.CA.5: 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 models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and that sometimes it is necessary to compose a ten.	Unit 7: 1.2, 1.3, 1.4, 1.5, 1.7, 1.8, Investigation 3
1.CA.6: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g., Which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$).	Unit 1: 2.2, 2.4, 2.5, 2.6, 3.2, 3.4 Unit 3: 1.2, 2.5, 2.6, 2.7, 2.8, Investigation 3, 4.8 Unit 5: 2.1, 2.3, 2.5, 2.7, 2.8, 3.1, 3.6
1.CA.7: Create, extend, and give an appropriate rule for number patterns using addition within 100.	Unit 7: Investigation 1, 2.1, 2.5, 2.6, 2.7, 2.8, 3.1
GEOMETRY	
1.G.1: Identify objects as two-dimensional or three-dimensional. Classify and sort two-dimensional and three-dimensional objects by shape, size, roundness and other attributes. Describe how two-dimensional shapes make up the faces of three-dimensional objects.	Unit 2: 1.1, 1.3, 1.4, 1.6, 1.7, Investigation 2 Unit 8: 1.1, 1.2, 1.3, 1.4, 1.7, 1.8, 1.9
1.G.2: Distinguish between defining attributes of two- and three-dimensional shapes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size). Create and draw two-dimensional shapes with defining attributes.	Unit 2: 1.1, 1.2, 1.3, 1.4, 1.6, 1.7, Investigation 2 Unit 4: CR 1.8, CR 2.1, 2.2, CR 2.2, 2.3, CR 2.4, CR 2.5, CR 2.6 Unit 8: Investigation 1

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1.G.3: Use two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. [In grade 1, students do not need to learn formal names such as "right rectangular prism."]	Unit 1: Investigation 1 Unit 2: Investigation 1 Unit 4: 2.2, 2.3, 2.4, 2.5 Unit 8: 1.3, 1.5, 1.6, 1.7, 1.8, 1.9
1.G.4: Partition circles and rectangles into two and four equal parts; describe the parts using the words halves, fourths, and quarters; and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of, the parts. Understand for partitioning circles and rectangles into two and four equal parts that decomposing into equal parts creates smaller parts.	Unit 4: Investigation 2
MEASUREMENT	
1.M.1: Use direct comparison or a nonstandard unit to compare and order objects according to length, area, capacity, weight, and temperature.	Unit 4: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7
1.M.2: Tell and write time to the nearest half-hour and relate time to events (before/after, shorter/longer) using analog clocks. Understand how to read hours and minutes using digital clocks.	Unit 1: CR 2.3 Unit 3: CR 1.4, CR 2.7, CR 4.3 Unit 4: 1.2, 2.1, 2.5 Unit 5: CR 1.1, CR 1.7, CR 2.4, CR 2.8, CR 3.2 Unit 6: CR 1.8, CR 2.1 Unit 7: CR 2.1, CR 3.3 Unit 8: CR 1.1, CR 1.3, CR 1.5, 1.6, CR 1.6
1.M.3: Find the value of a collection of pennies, nickels, and dimes.	This standard is addressed in Investigations 3, Grade 2. Please see: Unit 1: 1.5, 3.3 Unit 3: 1.3, 2.7 Unit 5: 1.4, 1.5
DATA ANALYSIS	
1.DA.1: Organize and interpret data with up to three choices (What is your favorite fruit? apples, bananas, oranges); ask and answer questions about the total number of data points, how many in each choice, and how many more or less in one choice compared to another.	Unit 1: 1.5 Unit 2: 2.1, 2.2, 2.3, 2.4 Unit 3: 4.1 Unit 6: Investigation 1, Investigation 2