

A Correlation of

SCOTT FORESMAN
Investigations
IN NUMBER, DATA, AND SPACE®

to the

INDIANA
Academic Standards
Mathematics

Grade Two

PEARSON

G/M-266_G2

INTRODUCTION

This correlation demonstrates the alignment of content between *Investigations in Number, Data, and Space* and Indiana's Academic Standards-Mathematics, Final Draft dated March 12, 2009. Correlation page references are to the Teacher Edition Curriculum Units, Student Math Handbook and Student Activity Book. The Indiana Online Activities for Investigations are available on Pearson SuccessNet in English and Spanish. These activities are cited in the correlation by unit number and activity number. On SuccessNet, you can download each activity which consists of a teacher page and a student page. The teacher page contains related vocabulary, directions for teaching the content, suggested questions to promote discussion, examples of student responses, and differentiation support. These Indiana Activities are provided to give teachers additional support while teaching the Indiana Academic Standards for Mathematics.

Investigations in Number, Data, and Space is a Kindergarten through Grade 5 mathematics curriculum designed to engage students in making sense of mathematical ideas. Six major goals guided the development of Investigations in Number, Data, and Space® curriculum. The curriculum is designed to:

- Support students to make sense of mathematics and learn that they can be mathematical thinkers
- Focus on computational fluency with whole number as a major goal of the elementary grades
- Provide substantive work in important areas of mathematics—rational numbers, geometry, measurement, data, and early algebra—and connections among them
- Emphasize reasoning about mathematical ideas
- Communicate mathematics content and pedagogy to teachers
- Engage the range of learners in understanding mathematics.

Underlying these goals are three guiding principles that are touchstones for the *Investigations* ©2008 team as they approach both students and teachers as agents of their own learning:

1. Students have mathematical ideas.
2. Teachers are engaged in ongoing learning about mathematics content, pedagogy and student learning.
3. Teachers collaborate with the students and curriculum materials to create the curriculum as enacted in the classroom.

Investigations is based on experience from research and practice. Based on that extensive classroom testing, the curriculum takes seriously the time students need to develop a strong conceptual foundation and skills based on that foundation. Each curriculum unit focuses on an area of content in depth, providing time for students to develop and practice ideas across a variety of activities and contexts that build on each other. An additional set of online lessons has been developed to address specific state standards. Daily guidelines for time spent on class sessions, Classroom Routines (K-3), and Ten-Minute Math (3-5) reflect the commitment to devoting adequate time to mathematics in each school day.

**Investigations in Number, Data, and Space
to the
Indiana Academic Standards – Mathematics**

Grade 2

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|--|--|
| GRADE 2 | |
| Standard 1 | |
| Number Sense and Computation | |
| 2.1.1 Count, read, write, compare, and plot on a number line whole numbers to at least 1000. | <p>These are some of the many examples.</p> <p>Unit 1: 53–54, 78–79, 88–89, 92, 96–97, 99, 101, 183, 190, 212–213, 218</p> <p>Unit 3: 141–142, 144–147, 154–159, 161–163, 171–174, 176–180, 186–188, 234, 259, 260–263</p> <p>Unit 5: 30, 43, 83–84, 93, 96–100, 105</p> <p>Unit 6: 25, 34, 78–79, 103–106, 133–138, 140–141, 148, 187–190</p> |
| 2.1.2 Count by ones, twos, fives, tens and hundreds to at least 1000, and show the number that is ten more or ten less than any number 10 through 90. | <p>Unit 1: 78–79, 88–89, 92, 96–97, 99, 101, 183, 190, 212–213, 218</p> <p>Unit 3: 141–142, 144–147, 154–159, 161–163, 171–174, 176–180, 186–188, 234, 259, 260–263</p> <p>Unit 5: 30, 43, 83–84, 93, 96–100, 105</p> <p>Unit 6: 25, 34, 103–106, 133–138, 140–141, 148, 187–190</p> |
| 2.1.3 Match the ordinal numbers, first, second, third, etc. with an ordered set of at least 100 items. | Online Activity: Unit 6 Activity 20 |
| 2.1.4 Use words, models, standard form and expanded form to represent place value and to show equivalent forms of whole numbers up to at least 1,000 as groups of hundreds, tens and ones. | <p>Unit 3: 176–178, 182–185, 188–203, 234–239, 262–263</p> <p>Unit 6: 12, 25, 127–128, 158–161</p> |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|--|--|
| 2.1.5 Identify numbers as even or odd by placing that number of objects in two groups of the same size and recognizing that for even numbers no object will be left over and for odd numbers one object will be left over. | Unit 3: 127–131, 133–136 Unit 8: 25–30 |
| 2.1.6 Solve problems involving addition and subtraction of whole numbers less than 1000 fluently using a standard algorithmic approach and show the inverse relationship between addition and subtraction. | These are some of the many examples. Unit 1: 121–122, 139–140, 141–143, 218–219 Unit 3: 42–44, 58–60, 64–65, 90–94 Unit 6: 48, 64–70, 75, 82, 86–88, 93, 147–148 Unit 8: 53–55, 62–63, 72, 88–92, 97–98, 117–119 |
| 2.1.7 Compare data displayed in tables and picture graphs within the table or graph and with data on other tables and graphs to address a single question. | Unit 4: 27–30, 38–40, 42–43, 49–50, 55–58, 60, 73–77, 79–82, 85–88, 93–96, 98–101, 103–107 |
| Standard 2 | |
| Algebra and Functions | |
| 2.2.1 Write equations to solve single and multi-step addition and subtraction word problems. | Unit 1: 64, 138–140, 150–151, 156–157, 160–161, 163–166, 174, 177 Unit 3: 73–80, 83–88, 90–94, 96–102, 107–108, 110–114, 157, 161, 184–185 Unit 6: 25–29, 31–36, 38–42, 44–47, 76–81, 91–93 Unit 8: 76–77, 79–80, 82, 88–91, 97–103, 113–121, 123, 126–129, 140–141 |
| 2.2.2 Create, extend, and give a rule for number patterns using addition and subtraction. | Unit 3: 142 Unit 5: 83–84, 85–87, 90–92, 992–94, 96–100, 106, 113, 128–129 |
| 2.2.3 Show that the order in which two numbers are added [commutative property] and how the numbers are grouped in addition [associative property] will not change the sum.] Use these properties can be used together to show that numbers can be added in any order. | Unit 1: 126, 186 Unit 8: 124, 131 |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|---|--|
| Standard 3 | |
| Geometry and Measurement | |
| 2.3.1 Recognize, identify and describe attributes of common shapes and solids (e.g., the size and type of shape, the two-dimensional faces of three-dimensional figures, the number of sides, edges and vertices; and location in space). | Unit 2: 25–30, 32–39, 41–44, 49, 63–67, 70–76, 78–83, 93–96, 103–104, 111–113, 150–151, 152–153 |
| 2.3.2 Identify and draw congruent two-dimensional shapes in any position. Describe and compare properties of simple and compound figures composed of triangles, rectangles, and squares. | Unit 1: 36–38, 44, 48 Unit 2: 10–11, 25–26, 47–49, 52–54, 86, 150–151, 178 |
| 2.3.3 Measure length in standard units (inch, foot, yard) and metric units (centimeter and meter) and select appropriate units to estimate and measure lengths. Use the relationships between the units to express answers in different units. Use units of linear measurements and relationships within a particular system to solve problems. | Unit 9: 92–95, 97–100, 102–104 |
| 2.3.4 Describe relationships of time (seconds in a minute, minutes in an hour, hours in a day, days in week, and days in a year) and tell time on an analog clock to five-minute intervals. | Unit 1: 32–33 Unit 9: 117–118, 124–125, 127–132, 135, 136, 140, 170–171 |
| 2.3.5 Find the value of a collection of pennies, nickels, dimes, quarters and dollars. | Unit 1: 69–72, 74–75, 77, 79–83, 87–89 Unit 3: 149–152, 157, 162, 186–188 Unit 6: 108–110, 114, 119, 122–123, 126–128, 135–138, 142, 146, 148, 154, 189–190 Unit 7: 48–49 |
| Process Standards | |
| Problem Solving | |
| • Build new mathematical knowledge through problem solving. | These are some of the many examples. Unit 1: 157, 160–161, 165–166 Unit 3: 96–102, 112–114, 128–131, 133–136 Unit 6: 120–121, 131–136 |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|--|--|
| <ul style="list-style-type: none"> • Solve problems that arise in mathematics and in other contexts. | <p>These are some of the many examples.</p> <p>Unit 1: 150–151, 157, 160–161, 176</p> <p>Unit 3: 73–75, 188–191, 196–199</p> <p>Unit 6: 44–46, 120–121, 131–136</p> |
| <ul style="list-style-type: none"> • Apply and adapt a variety of appropriate strategies to solve problems. | <p>These are some of the many examples.</p> <p>Unit 1: 139–143, 160–161</p> <p>Unit 3: 76–79, 83–86, 86–88, 154–155</p> <p>Unit 6: 38–41, 77–81, 84–86</p> |
| <ul style="list-style-type: none"> • Monitor and reflect on the process of mathematical problem solving. | <p>These are some of the many examples.</p> <p>Unit 1: 139–140, 150–151, 156–157</p> <p>Unit 3: 96–102, 107–108, 117, 157, 161</p> <p>Unit 6: 25–26, 38–41, 44–47</p> <p>Unit 8: 75–76, 92–93, 97–100</p> |
| Reasoning and Proof | |
| <ul style="list-style-type: none"> • Recognize reasoning and proof as fundamental aspects of mathematics. | <p>These are some of the many examples.</p> <p>Unit 1: 16–17</p> <p>Unit 3: 18, 20, 33, 36–37, 142</p> <p>Unit 5: 36</p> <p>Unit 6: 16–17</p> <p>Unit 8: 10, 16–17, 27–29, 33–34, 38, 40–42, 44–47, 54–55, 60, 63, 97</p> |
| <ul style="list-style-type: none"> • Make and investigate mathematical conjectures. | <p>These are some of the many examples.</p> <p>Unit 1: 16–17</p> <p>Unit 3: 18, 20, 33, 36–37, 142</p> <p>Unit 5: 36</p> <p>Unit 6: 16–17</p> <p>Unit 8: 10, 16–17, 27–29, 33–34, 38, 40–42, 44–47, 54–55, 60, 63, 97</p> |
| <ul style="list-style-type: none"> • Develop and evaluate mathematical arguments and proofs. | <p>These are some of the many examples.</p> <p>Unit 1: 16–17</p> <p>Unit 3: 18, 20, 33, 36–37, 142</p> <p>Unit 5: 36</p> <p>Unit 6: 16–17</p> <p>Unit 8: 10, 16–17, 27–29, 33–34, 38, 40–42, 44–47, 54–55, 60, 63, 97</p> |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|--|--|
| <ul style="list-style-type: none"> • Select and use various types of reasoning and methods of proof. | <p>These are some of the many examples.</p> <p>Unit 1: 16–17</p> <p>Unit 3: 18, 20, 33, 36–37, 142</p> <p>Unit 5: 36</p> <p>Unit 6: 16–17</p> <p>Unit 8: 10, 16–17, 27–29, 33–34, 38, 40–42, 44–47, 54–55, 60, 63, 97</p> |
| Communication | |
| <ul style="list-style-type: none"> • Organize and consolidate their mathematical thinking through communication. | <p>These are some of the many examples.</p> <p>Unit 1: 87–89, 96–97, 121–122, 141–143, 157</p> <p>Unit 6: 58–59, 132–133, 134–136</p> <p>Unit 7: 22–24, 34–35, 51–52, 59–62, 75–76</p> |
| <ul style="list-style-type: none"> • Communicate their mathematical thinking coherently and clearly to peers, teachers, and others. | <p>These are some of the many examples.</p> <p>Unit 1: 87–89, 96–97, 121–122, 141–143, 157</p> <p>Unit 6: 58–59, 132–133, 134–136</p> <p>Unit 7: 22–24, 34–35, 51–52, 59–62, 75–76</p> |
| <ul style="list-style-type: none"> • Analyze and evaluate the mathematical thinking and strategies of others. | <p>These are some of the many examples.</p> <p>Unit 1: 87–89, 96–97, 121–122, 141–143, 157</p> <p>Unit 6: 58–59, 132–133, 134–136</p> <p>Unit 7: 22–24, 34–35, 51–52, 59–62, 75–76</p> |
| <ul style="list-style-type: none"> • Use the language of mathematics to express mathematical ideas precisely. | <p>These are some of the many examples.</p> <p>Unit 1: 87–89, 96–97, 121–122, 141–143, 157</p> <p>Unit 6: 58–59, 132–133, 134–136</p> <p>Unit 7: 22–24, 34–35, 51–52, 59–62, 75–76</p> |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|--|---|
| Connections | |
| <ul style="list-style-type: none"> Recognize and use connections among mathematical ideas. | <p>These are some of the many examples.</p> <p>Unit 1: 85–89, 140–143</p> <p>Unit 3: 18–19, 88, 90–94, 96–102, 112–114, 151–152</p> <p>Unit 6: 48, 82, 93, 108–110, 122–123, 126–128, 148</p> <p>Unit 8: 53–55, 72, 91, 195–196</p> |
| <ul style="list-style-type: none"> Understand how mathematical ideas interconnect and build on one another to produce a coherent whole. | <p>These are some of the many examples.</p> <p>Unit 1: 85–89, 140–143</p> <p>Unit 3: 18–19, 88, 90–94, 96–102, 112–114, 151–152</p> <p>Unit 6: 48, 82, 93, 108–110, 122–123, 126–128, 148</p> <p>Unit 8: 53–55, 72, 91, 195–196</p> |
| <ul style="list-style-type: none"> Recognize and apply mathematics in contexts outside of mathematics. | <p>These are some of the many examples.</p> <p>Unit 4: 38–40, 49–51, 63–64, 85–86, 90–91, 98–101</p> <p>Unit 5: 29–36</p> <p>Unit 7: 22–24, 54–57, 59–62, 65–67</p> |
| Representation | |
| <ul style="list-style-type: none"> Create and use representations to organize, record, and communicate mathematical ideas. | <p>These are some of the many examples.</p> <p>Unit 1: 187–189</p> <p>Unit 3: 190–196, 237–238</p> <p>Unit 4: 79–80, 82–83, 85–86, 93–94, 103–104, 112–113, 125–128</p> <p>Unit 6: 78–79, 158–161</p> |
| <ul style="list-style-type: none"> Select, apply, and translate among mathematical representations to solve problems. | <p>These are some of the many examples.</p> <p>Unit 1: 187–189</p> <p>Unit 3: 190–196, 237–238</p> <p>Unit 4: 79–80, 82–83, 85–86, 93–94, 103–104, 112–113, 125–128</p> <p>Unit 6: 78–79, 158–161</p> |
| <ul style="list-style-type: none"> Use representations to model and interpret physical, social, and mathematical phenomena. | <p>These are some of the many examples.</p> <p>Unit 1: 187–189</p> <p>Unit 3: 190–196, 237–238</p> <p>Unit 4: 79–80, 82–83, 85–86, 93–94, 103–104, 112–113, 125–128</p> <p>Unit 6: 78–79, 158–161</p> |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|---|--|
| Estimation and Mental Computation | |
| <ul style="list-style-type: none"> • Know and apply appropriate methods for estimating the results of computations. | Unit 1: 91, 146–148, 221 Unit 3: 144 |
| <ul style="list-style-type: none"> • Round numbers to a specified place value. | Online Activity: Unit 8 Activity 32 |
| <ul style="list-style-type: none"> • Use estimation to decide whether answers are reasonable. | Unit 9: 30–33, 40–42, 99 |
| <ul style="list-style-type: none"> • Decide when estimation is an appropriate strategy for solving a problem. | Unit 9: 30, 40–42 |
| <ul style="list-style-type: none"> • Determine appropriate accuracy and precision of measurement in problem situations. | Unit 9: 30–35, 40–42, 44–46, 48–50, 52–54, 62–64, 66–69, 79–84, 86–90, 92–95, 97–100, 102–104, 111–115, 117–120, 122–125, 127–133, 135–138, 139–142 |
| <ul style="list-style-type: none"> • Use properties of numbers and operations to perform mental computation. | Unit 1: 126, 186 Unit 8: 124, 131 |
| <ul style="list-style-type: none"> • Recognize when the numbers involved in a computation allow for a mental computation strategy. | Unit 6: 143 |
| Technology | |
| <ul style="list-style-type: none"> • Technology should be used as a tool in mathematics education to support and extend the mathematics curriculum. | Implementation Guide: 41–43 Unit 2: 10–11, 12–13, 33–34, 38–39, 44, 52–53, 55, 87–88, 90, 96, 100, 129, 131, 134, 136, 155–157, 167 |
| <ul style="list-style-type: none"> • Technology can contribute to concept development, simulation, representation, communication, and problem solving. | Implementation Guide: 41–43 Unit 2: 10–11, 12–13, 33–34, 38–39, 44, 52–53, 55, 87–88, 90, 96, 100, 129, 131, 134, 136, 155–157, 167 |
| <ul style="list-style-type: none"> • The challenge is to ensure that technology supports-but is not a substitute for- the development of skills with basic operations, quantitative reasoning, and problem solving skills. | Implementation Guide: 41–43 Unit 2: 10–11, 12–13, 33–34, 38–39, 44, 52–53, 55, 87–88, 90, 96, 100, 129, 131, 134, 136, 155–157, 167 |

| Indiana Mathematics Standards | Investigations in Number, Data, and Space |
|---|--|
| <p>o Elementary students should learn how to perform thoroughly the basic arithmetic operations independent of the use of a calculator.</p> | <p>These are some of the many examples. Implementation Guide: 41–43 Unit 6: 16, 25–30, 32–36, 37–38, 40–43, 46–48, 79–83, 86–88, 91–95, 145–148, 178–180 Unit 8: 79–86, 92–93, 99, 101–103, 113, 115–117, 123–128, 131–135</p> |
| <p>o The focus must be on learning mathematics, using technology as a tool rather than as an end in itself.</p> | <p>Implementation Guide: 41–43 Unit 2: 10–11, 12–13, 33–34, 38–39, 44, 52–53, 55, 87–88, 90, 96, 100, 129, 131, 134, 136, 155–157, 167</p> |