Indiana Mathematics

Grade 2

Adopted 2023

Mathematics Process Standards

1. **Make sense of problems and persevere in solving them.** 2.PS.1
2. **Reason abstractly and quantitatively.** 2.PS.2
3. **Construct viable arguments and critique the reasoning of others.** 2.PS.3
4. **Model with mathematics.** 2.PS.4
5. **Use appropriate tools strategically.** 2.PS.5
6. **Attend to precision.** 2.PS.6
7. **Look for and make use of structure.** 2.PS.7
8. **Look for and express regularity in repeated reasoning.** 2.PS.8

Number Sense

NS. Students fluently count, read, and represent numbers up to 1,000 using place value concepts. 2.NS

1. Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number. 2.NS.1
2. Read and write whole numbers up to 1,000. Use words, models, standard form, and expanded form to represent and show equivalent forms of whole numbers up to 1,000. 2.NS.2
3. Determine whether a group of objects (up to 20) has an odd or even number of members (e.g., 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, or by pairing objects or counting them by twos). 2.NS.3
4. Define and model a "hundred" as a group of ten tens. Model place value concepts of three-digit numbers, multiples of 100, and equivalent forms of whole numbers using objects and drawings. 2.NS.4
5. Use place value understanding to 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.NS.5

Co Alg

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Within the numbers 1-100, students apply place value concepts and addition and subtraction concepts to solve real-world problems and reason about their

strategies and solutions. Students explore effects of properties of addition on solutions and investigate number patterns, and apply concepts of addition and subtraction within 1,000. 2.CA

1. Solve real-world problems involving addition and subtraction within 100 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 drawings and equations with a symbol for the unknown number to represent the problem). Use estimation to decide whether answers are reasonable in addition problems. 2.CA.1
2. Using number sense and place value strategies, add and subtract within 1,000, including composing and decomposing tens and hundreds. Use models, 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. 2.CA.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. These properties can be used to show that numbers can be added in any order. 2.CA.3
4. Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1,000. 2.CA.4

Geometry

G. Students investigate and classify two- and three-dimensional shapes based on faces, sides, and vertices, and investigate the results of composing and decomposing each shape. Students continue to build foundational fraction knowledge through specific partitioning and naming of rectangles and circles. 2.G

1. Identify, describe, and classify two- and three-dimensional shapes (i.e., triangle, square, rectangle, cube, right rectangular prism) according to the number and shape of faces and the number of sides and/or vertices. Draw two-dimensional shapes. 2.G.1
2. Investigate and predict the result of composing and decomposing two- and three-dimensional shapes. 2.G.2
3. Partition a rectangle into rows and columns of same-size (unit) squares and count to find the total number of same-size squares. 2.G.3
4. Partition circles and rectangles into two, three, or four equal parts; describe the shares using the words halves, thirds, half of, a third of, etc.; and describe the whole as two halves, three thirds, or four fourths. Recognize that equal parts of identical wholes need not have the same shape. 2.G.4

Measurement

M. Students use appropriate tools, computation strategies, and relationships of measurement to solve real-world problems including measurements of length and capacity, telling time to the nearest five minutes, and collections of coins and dollars. 2.M

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1. Describe the relationships among an inch, foot, and yard. Describe the relationship between a centimeter and meter. 2.M.1
2. Estimate and measure the length of an object by selecting and using appropriate tools, such as rulers, yardsticks, meter sticks, and measuring tapes to the nearest inch, foot, yard, centimeter, and meter. 2.M.2
3. Estimate and measure volume (capacity) using cups and pints. Add and subtract to solve real-world problems involving capacities that are given in the same units or obtained through investigations. 2.M.3
4. Tell and write time to the nearest five minutes from analog clocks, using a.m. and p.m. Solve real-world problems involving addition and subtraction of time intervals on the hour or half hour. 2.M.4
5. Describe relationships of time, including seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year. 2.M.5
6. Find the value of a collection of pennies, nickels, dimes, quarters, and dollars. 2.M.6

Data Analysis

DA. Students interact with a variety of data collection models and evaluate mathematical relationships within the data using grade-level appropriate strategies. 2.DA

1. Collect, organize, and graph data from observations, surveys, and investigations using scaled bar graphs and pictographs (limit scale to 2s, 5s, 10s, and 100s); interpret mathematical relationships within the data using grade-level addition, subtraction, and comparison strategies. 2.DA.1