Indiana Mathematics

Grade 1

Adopted 2023

Mathematics Process Standards

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

Number Sense

NS. Students fluently count, read, and represent numbers up to 120 and apply place value concepts to two-digit numbers. 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. 1.NS.1
2. Model place value concepts of two-digit numbers, multiples of 10, and equivalent forms of whole numbers using objects and drawings. 1.NS.2
3. Match the ordinal numbers (e.g., first, second, third) with an ordered set of up to 20 items. 1.NS.3
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 <. 1.NS.4

Computation and Algebraic Thinking

CA. Within the numbers 1-20, students demonstrate fluency and apply addition and subtraction strategies to solve real-world problems. Students apply place value and number sense to add numbers within 100 and investigate beginning algebra concepts through the growing number patterns within 100. 1.CA

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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 10 (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). Model the role of 0 and the equal sign in addition and subtraction using objects or drawings. 1.CA.1
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). 1.CA.2
3. Using number sense and place value strategies, 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. Use 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. 1.CA.3
4. Create, extend, and give an appropriate rule for number patterns using addition within 100. 1.CA.4

Geometry

G. Students make observations about a shape's defining attributes and utilize them to classify, draw, and compose two-dimensional or three-dimensional shapes. Students begin exploring fractional foundations through the partitioning of rectangles and circles. 1.G

1. 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. 1.G.1
2. Use two-dimensional shapes (e.g., rectangles, squares, trapezoids, triangles, half-circles, quarter-circles) or three-dimensional shapes (e.g., cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. 1.G.2
3. 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. 1.G.3

Measurement

M. Using standard and non-standard measurements, students compare and order objects, tell time to the hour and half-hour, and investigate beginning concepts of money. 1.M

1. Use direct comparison or a nonstandard unit to compare and order objects according to length, area, capacity, weight, and temperature. 1.M.1

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2. Tell and write time to the nearest half-hour and relate time to events (before/after, shorter/longer) using analog clocks. Explain how to read hours and minutes using digital clocks. 1.M.2
3. Identify the value of a penny, nickel, dime, and a collection of pennies, nickels, and dimes. 1.M.3

Data Analysis

DA. Students collect, organize, and evaluate simple data using grade-level appropriate strategies. 1.DA

1. With guidance, collect data from a simple survey or collaborative investigation; organize data into appropriate single-unit bar graphs, pictographs, and/or tables and draw conclusions based on mathematical observations, comparisons, and grade-level computation strategies. 1.DA.1