Indiana Mathematics

Grade K

Adopted 2023

Mathematics Process Standards

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

Number Sense

NS. Students explore the foundations of numbers through counting strategies, one-to-one correspondence, and place value of numbers up to 20. K.NS

1. Count to at least 100 by ones and tens. Count by one from any given number. K.NS.1
2. Write whole numbers from 0 to 20 and identify number words from 0 to 10. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). K.NS.2
3. Say the number names in standard order when counting objects, pairing each object with one and only one number name and each number name with one and only one object. Understand that the last number name said describes the number of objects counted and that the number of objects is the same regardless of their arrangement or the order in which they were counted. Count out the number of objects, given a number from 1 to 20. K.NS.3
4. Identify sets of 1 to 10 objects in patterned arrangements and tell how many without counting. K.NS.4
5. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (e.g., by using matching and counting strategies). K.NS.5
6. Compare the values of two numbers from 1 to 20 presented as written numerals. K.NS.6

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7. Define and model a "ten" as a group of ten ones. Model equivalent forms of whole numbers from 10 to 20 as groups of tens and ones using objects and drawings. K.NS.7

Computation and Algebraic Thinking

CA. Within the numbers 1-10, students use objects and drawings to model the composing (addition) and decomposing (subtraction) of numbers, and solve real-world problems. Students investigate beginning algebra concepts through simple repeating and growing patterns. K.CA

1. Solve real-world problems that involve addition and subtraction within 10 using modeling with objects or drawings. K.CA.1
2. Use objects or drawings to model the decomposition of numbers less than 10 into pairs in more than one way. Identify corresponding equations. K.CA.2
3. Find the number that makes 10 when added to the given number for any number from 1 to 9 (e.g., by using objects or drawings), and record the answer with a drawing or an equation. K.CA.3
4. Create, extend, and give an appropriate rule for simple repeating and growing patterns with numbers and shapes. K.CA.4

Geometry

G. Students investigate and compare two- and three-dimensional shapes based on simple attributes. K.G

1. Compare two- and three-dimensional shapes in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners"), and other attributes (e.g., having sides of equal length). K.G.1

Measurement

M. Students investigate beginning concepts of length, weight, capacity, temperature, and time through observations of direct comparisons. K.M

1. Make direct comparisons of the length, capacity, weight, and temperature of objects, and identify which object is shorter, longer, taller, lighter, heavier, warmer, cooler, or holds more. K.M.1
2. Identify and use appropriate terms to describe intervals of time including: morning, afternoon, evening, today, yesterday, tomorrow, day, week, month, and year; describe how calendars and clocks are tools to measure time. K.M.2

Data Analysis

DA. Students begin interacting with data to create and interpret data for patterns and comparison. K.DA

1. With guidance, collect and organize data into simple bar graphs, pictographs, and/or tables to identify patterns and make comparisons. K.DA.1