Indiana Mathematics Content Connectors

Grade 1

Number Sense 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. (E) 1.NS.1

- a Count to 30 by ones, fives, and tens. Count by ones up to 30 from any number. Identify whole numbers from 0 to 30. Identify the numerals 0-30 when presented with the name of the number. Write or select the numerals 0-30 to represent a number of objects. (E) 1.NS.1A

2 Model place value concepts of two-digit numbers, multiples of 10, and equivalent forms of whole numbers using objects and drawings. (E) 1.NS.2

- a Build and model representations of numbers up to 19 by creating a group of ten and some ones using objects and drawings. Build and model representations of multiples of ten up to 30 by creating a group of ten using objects and drawings. Identify the value of the numbers in the tens and ones place within a given number up to 30. (E) 1.NS.2A

3 Match the ordinal numbers (e.g., first, second, third) with an ordered set of up to 20 items. 1.NS.3

- a Match the ordinal number (e.g., first, second, third) with an ordered set of up to ten items. 1.NS.3A

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 <. (E) 1.NS.4

- a Use place value modeling with objects and numbers to verbally compare two numbers up to 30. (E) 1.NS.4A

Computation and Algebraic Thinking 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 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. (E) 1.CA.1

- a Count two sets of objects to find sums up to 20. Decompose a set of objects up to 20 into two groups; count the quantity in each group. (E) 1.CA.1A

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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). (E)** 1.CA.2

a Solve real-world problems involving addition within 20 and subtraction within ten using objects, drawings, or equations with a symbol for the unknown. Using objects or pictures, respond appropriately to "add __" and "take away __." (E) 1.CA.2A

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. (E)** 1.CA.3

a Add within 20, including adding a two-digit number and a one-digit number. Use models or drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. 1.CA.3A

4 **Create, extend, and give an appropriate rule for number patterns using addition within 100.** 1.CA.4

a Create and extend a number pattern using addition within 20 when given a rule. 1.CA.4A

Geometry 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

a Identify defining and non-defining attributes of two- and three-dimensional shapes. Distinguish two- and three-dimensional shapes based on their attributes. 1.G.1A

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. [In grade 1, students do not need to learn formal names such as "right rectangular prism."]** 1.G.2

a Use two- and three-dimensional shapes to create a composite shape. 1.G.2A

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

Partition circles and rectangles into two and four equal parts and describe the parts using the words halves and fourths. (E) 1.G.3A

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Measurement M

1. **Use direct comparison or a nonstandard unit to compare and order objects according to length, area, capacity, weight, and temperature. (E)** 1.M.1
   - a Order up to three objects based on a measurable attribute (height, weight, or length) using direct comparison or a nonstandard unit. (E) 1.M.1A
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. (E)** 1.M.2
   - a Tell time to the nearest hour using analog clocks. Read hours and minutes using a digital clock. Relate the concept of time to daily activities or routines using a digital clock. (E) 1.M.2A
3. **Identify the value of a penny, nickel, dime, and a collection of pennies, nickels, and dimes.** 1.M.3
   - a Identify the value of a penny, nickel, and dime. Identify the value of a collection of like coins. (E) 1.M.3A

Data Analysis

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. (E)** 1.DA.1
   - a With guidance, collect and organize data into simple bar graphs, pictographs, and/or tables. Sort data into two categories; answer questions about the total number of data points and how many in each category. 1.DA.1A