

First Grade Mathematics 2016

Indiana Academic Standards	Content Connectors
Number Sense	
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.a.1: Count to at least 50 by ones, fives, and tens from 0 with tools. 1.NS.1.a.2: From 0 - 50, read and write numerals and represent a number of objects with a written numeral.
1.NS.2: Understand that 10 can be thought of as a group of ten ones — called a “ten.” Understand that the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	1.NS.2.a.1: Understand that 10 can be thought of as a group of ten ones -- called a "ten". 1.NS.2.a.2 Understand that when groups of tens and ones are combined, a new number is formed.
1.NS.3: Match the ordinal numbers first, second, third, etc., with an ordered set up to 10 items.	1.NS.3.a.1: Match the ordinal numbers first, second, third, etc., with an ordered set up to 5 items.
1.NS.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.a.1: Use place value understanding to compare two two-digit numbers based on meanings of the tens and ones digits. 1.NS.4.a.2 Choose the correct symbol $>$, $=$, and $<$.
1.NS.5: Find mentally 10 more or 10 less than a given two-digit the number without having to count, and explain the thinking process used to get the answer.	1.NS.5.a.1: Find 10 more or 10 less than a given two-digit number.
1.NS.6: Show equivalent forms of whole numbers as groups of tens and ones, and understand that the individual digits of a two-digit number represent amounts of tens and ones.	1.NS.6.a.1: Understand that the two digits of a two-digit number represent amounts of tens, and ones.

Computation	
<p>1.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 ten (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 $6 + 6 + 1 = 12 + 1 = 13$). Understand the role of 0 in addition and subtraction.</p>	<p>1.CA.1.a.1: Demonstrate 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 ten (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 $6 + 6 + 1 = 12 + 1 = 13$). Understand the role of 0 in addition and subtraction.</p>
<p>1.CA.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).</p>	<p>1.CA.2.a.1: Use strategy to solve real-world problems involving addition and subtraction within 10 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem.</p>
<p>1.CA.3: Create a real-world problem to represent a given equation involving addition and subtraction within 20.</p>	<p>1.CA.3.a.1: Create a real-world problem to represent a given equation involving addition and subtraction within 10.</p>
<p>1.CA.4: Solve real-world problems that call for addition of three whole numbers whose sum is within 20 (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).</p>	<p>1.CA.4.a.1: Solve real-world problems that call for addition of three whole numbers whose sum is within 10 (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).</p>
<p>1.CA.5: 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, using 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and that sometimes it is necessary to compose a ten.</p>	<p>1.CA.5.a.1: Add within 50 including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>
<p>1.CA.6: Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g., Which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$).</p>	<p>1.CA.6.a.1: Understand the meaning of the equal sign.</p>

1.CA.7: Create, extend, and give an appropriate rule for number patterns using addition within 100.	1.CA.7.a.1: Create, extend, and give an appropriate rule for number patterns using addition within 50.
Geometry	
1.G.1: Identify objects as two-dimensional or three-dimensional. Classify and sort two-dimensional and three-dimensional objects by shape, size, roundness and other attributes. Describe how two-dimensional shapes make up the faces of three-dimensional objects.	<p>1.G.1.a.1: Identify objects as two-dimensional or three-dimensional.</p> <p>1.G.1.a.2: Explore attributes of two-dimensional and three-dimensional objects.</p> <p>1.G.1.a.3: Identify the two-dimensional shapes that make up the faces of three-dimensional objects.</p>
1.G.2: 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.2.a.1: Name 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).
1.G.3: Use two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (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.3.a.1: Use geometric shapes (e.g., two-dimensional and three-dimensional) to create a composite shape.
1.G.4: 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.4.a.1: Divide circles and rectangles into two equal parts; name the parts of the shape using the word halves.

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Measurement	
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.a.1: Use a nonstandard unit to compare and order objects according to length, weight, and temperature.
1.M.2: Tell and write time to the nearest half-hour and relate time to events (before/after, shorter/longer) using analog clocks. Understand how to read hours and minutes using digital clocks.	1.M.2.a.1: Tell and write time to the nearest hour.
1.M.3: Find the value of a collection of pennies, nickels, and dimes.	1.M.3.a.1: Find the value of a collection of pennies, nickels, and dimes.
Data Analysis	
1.DA.1: Organize and interpret data with up to three choices (What is your favorite fruit? apples, bananas, oranges); ask and answer questions about the total number of data points, how many in each choice, and how many more or less in one choice compared to another.	1.DA.1.a.1: Interpret data with two choices. Ask and answer questions about the total number of data points, how many in each choice, and how many more or less in one choice compared to another.