## Grade 3 Mathematics

This document provides correlations between the 2023 Indiana Academic Standards and the 2020 Indiana Academic Standards for easy reference.

The 2023 Indiana Academic Standards resulted from the standards streamlining process required by Indiana Code 20-31-3-1(c-d) and were adopted by the Indiana State Board of Education in June 2023. Standards designated as essential (E) are shaded in gray and all standards were renumbered to avoid gaps in sequencing.

| 2023 Indiana Academic Standard | | 2020 Indiana Academic Standard | |
|---|---|---|---|
| **Domain: Number Sense** | | **Domain: Number Sense** | |
| **Number** | **Text** | **Number** | **Text** |
| **3.NS.1** | Read and write whole numbers up to 10,000. Use words, models, standard form, and expanded form to represent and show equivalent forms of whole numbers up to 10,000. | **3.NS.1** | Read and write whole numbers up to 10,000. Use words, models, standard form and expanded form to represent and show equivalent forms of whole numbers up to 10,000. |
| **3.NS.2** | Model unit fractions as the quantity formed by 1 part when a whole is partitioned into equal parts; model non-unit fractions as the quantity formed by iterations of unit fractions. [In grade 3, limit denominators of fractions to 2, 3, 4, 6, 8.] (E) | **3.NS.3** | Understand a fraction, 1/b, as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction, a/b, as the quantity formed by a parts of size 1/b. [In grade 3, limit denominators of fractions to 2, 3, 4, 6, 8.] |
| **3.NS.3** | Model a non-unit fraction on a number line by marking equal lengths from 0, identifying each part as a unit fraction and locating the non-unit fraction as the endpoint on the number line.  (E) | **3.NS.5** | Represent a fraction, a/b, on a number line by marking off lengths 1/b from 0. Recognize that the resulting interval has size a/b, and that its endpoint locates the number a/b on the number line. |
| **3.NS.4** | Use fraction models to represent two simple equivalent fractions with attention to how the | **3.NS.7** | Recognize and generate simple equivalent fractions (e.g., 1/2 = 2/4, 4/6 = 2/3).  Explain why the fractions |

| | | | |
|---|---|---|---|
| | number and size of the parts differ even though the quantities are the same. Use this principle to generate simple equivalent fractions (e.g., 1/2 = 2/4, 4/6 = 2/3). | | are equivalent (e.g., by using a visual fraction model). |
| **3.NS.5** | Compare two fractions with the same numerator or the same denominator by reasoning about their size based on the same whole. Record the results of comparisons with the symbols > , = , or < , and justify the conclusions (e.g., by using a visual fraction model). (E) | **3.NS.8** | Compare two fractions with the same numerator or the same denominator by reasoning about their size based on the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions (e.g., by using a visual fraction model). |
| **3.NS.6** | Use place value understanding to round two- and three-digit whole numbers to the nearest 10 or 100. | **3.NS.9** | Use place value understanding to round 2- and 3-digit whole numbers to the nearest 10 or 100. |
| | | **3.NS.2** | Compare two whole numbers up to 10,000 using >, =, and < symbols. |
| | | **3.NS.4** | Represent a fraction, 1/b, on a number line by defining the interval from 0 to 1 as the whole, and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line. |
| | | **3.NS.6** | Understand two fractions as equivalent (equal) if they are the same size, based on the same whole or the same point on a number line. |

| 2023 Indiana Academic Standard | | 2020 Indiana Academic Standard | |
|---|---|---|---|
| **Domain: Computation and Algebraic Thinking** | | **Domain: Computation and Algebraic Thinking** | |
| **Number** | **Text** | **Number** | **Text** |
| **3.CA.1** | Fluently add and subtract multi-digit whole numbers using strategies and algorithms based on place value, properties of operations, and relationships between addition and subtraction. | **3.C.1** | Fluently add and subtract whole numbers within 1000 using strategies and algorithms based on place value, properties of operations, and relationships between addition and subtraction. |
| **3.CA.2** | Solve real-world problems involving addition and subtraction of multi-digit whole numbers (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). (E) | **4.AT.1** | Solve real-world problems involving addition and subtraction of multi-digit whole numbers (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). |
| **3.CA.3** | Model the concept of multiplication of whole numbers using equal-sized groups, arrays, area models, and equal intervals on a number line. Model the properties of 0 and 1 in multiplication using objects or drawings. (E) | **3.C.2** | Represent the concept of multiplication of whole numbers with the following models: equal-sized groups, arrays, area models, and equal "jumps" on a number line. Understand the properties of 0 and 1 in multiplication. |
| **3.CA.4** | Model the concept of division of whole numbers with the following models: partitioning, sharing, and an inverse of multiplication. Model the properties of 0 and 1 in division using objects or drawings. (E) | **3.C.3** | Represent the concept of division of whole numbers with the following models: partitioning, sharing, and an inverse of multiplication. Understand the properties of 0 and 1 in division. |
| **3.CA.5** | Multiply and divide within 100 using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. (E) | **3.C.5** | Multiply and divide within 100 using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8), or properties of operations. |
| **3.CA.6** | Demonstrate fluency with mastery of multiplication facts and corresponding division facts of 0 to 10. | **3.C.6** | Demonstrate fluency with mastery of multiplication facts and corresponding division facts of 0 to 10. |

| | | | |
|---|---|---|---|
| **3.CA.7** | Solve real-world problems involving whole number multiplication and division within 100 in situations involving equal groups, arrays, and measurement quantities (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). (E) | **3.AT.2** | Solve real-world problems involving whole number multiplication and division within 100 in situations involving equal groups, arrays, and measurement quantities (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). |
| **3.CA.8** | Create, extend, and give an appropriate rule for number patterns within 100 (including patterns in the addition table or multiplication table). | **3.AT.6** | Create, extend, and give an appropriate rule for number patterns within 100 (including patterns in the addition table or multiplication table). |
| | | **3.C.4** | Interpret whole-number quotients of whole numbers (e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each). |
| | | **3.AT.1** | Solve real-world problems involving addition and subtraction of whole numbers within 1000 (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). |
| | | **3.AT.3** | Solve two-step real-world problems using the four operations of addition, subtraction, multiplication and division (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). |
| | | **3.AT.4** | Interpret a multiplication equation as equal groups (e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each). Represent verbal statements of equal groups as multiplication |

| | | | equations. |
|---|---|---|---|
| | | **3.AT.5** | Determine the unknown whole number in a multiplication or division equation relating three whole numbers. |
| **2023 Indiana Academic Standard** | | **2020 Indiana Academic Standard** | |
| **Domain: Geometry** | | **Domain: Geometry** | |
| **Number** | **Text** | **Number** | **Text** |
| **3.G.1** | Define, identify, and classify four-sided shapes such as rhombuses, rectangles, and squares as quadrilaterals. Identify and draw examples and non-examples of quadrilaterals. | **3.G.2** | Understand that shapes (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize and draw rhombuses, rectangles, and squares as examples of quadrilaterals. Recognize and draw examples of quadrilaterals that do not belong to any of these subcategories. |
| **3.G.2** | Identify, describe, and draw points, lines, and line segments using appropriate tools (e.g., ruler, straightedge, and technology), and use these terms when describing two-dimensional shapes. | **3.G.3** | Identify, describe and draw points, lines and line segments using appropriate tools (e.g., ruler, straightedge, and technology), and use these terms when describing two-dimensional shapes. |
| **3.G.3** | Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole (i.e., 1/2, 1/3, 1/4, 1/6, 1/8). | **3.G.4** | Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole (1/2, 1/3, 1/4, 1/6, 1/8). |
| | | **3.G.1** | Identify and describe the following: cube, sphere, prism, pyramid, cone, and cylinder. |

| 2023 Indiana Academic Standard | | 2020 Indiana Academic Standard | |
|---|---|---|---|
| **Domain: Measurement** | | **Domain: Measurement** | |
| **Number** | **Text** | **Number** | **Text** |
| **3.M.1** | Estimate and measure the mass of objects in grams (g) and kilograms (kg) and the volume of objects in quarts (qt), gallons (gal), and liters (l). Add, subtract, multiply, or divide to solve one-step, real-world problems involving masses or volumes that are given in the same units or obtained through investigation. (E) | **3.M.1** | Estimate and measure the mass of objects in grams (g) and kilograms (kg) and the volume of objects in quarts (qt), gallons (gal), and liters (l). Add, subtract, multiply, or divide to solve one-step real-world problems involving masses or volumes that are given in the same units (e.g., by using drawings, such as a beaker with a measurement scale, to represent the problem). |
| **3.M.2** | Choose and use appropriate units and tools to estimate and measure length, weight, and temperature. Estimate and measure length to a quarter-inch, weight in pounds, and temperature in degrees Celsius and Fahrenheit. | **3.M.2** | Choose and use appropriate units and tools to estimate and measure length, weight, and temperature. Estimate and measure length to a quarter-inch, weight in pounds, and temperature in degrees Celsius and Fahrenheit. |
| **3.M.3** | Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes (e.g., by representing the problem on a number line diagram). (E) | **3.M.3** | Tell and write time to the nearest minute from analog clocks, using a.m. and p.m., and measure time intervals in minutes. Solve real-world problems involving addition and subtraction of time intervals in minutes. |
| **3.M.4** | Find the value of any collection of coins and bills. Write amounts less than a dollar using the ¢ symbol and write larger amounts using the $ symbol in the form of dollars and cents (e.g., $4.59). Solve real-world problems to determine whether there is enough money to make a purchase. (E) | **3.M.4** | Find the value of any collection of coins and bills. Write amounts less than a dollar using the ¢ symbol and write larger amounts using the $ symbol in the form of dollars and cents (e.g., $4.59). Solve real-world problems to determine whether there is enough money to make a purchase. |

| 3.M.5 | Find the area of a rectangle with whole-number side lengths by modeling with unit squares, and show that the area is the same as would be found by multiplying the side lengths. Identify and draw rectangles with the same perimeter and different areas or with the same area and different perimeters. (E) | 3.M.5 | Find the area of a rectangle with whole-number side lengths by modeling with unit squares, and show that the area is the same as would be found by multiplying the side lengths. Identify and draw rectangles with the same perimeter and different areas or with the same area and different perimeters. |
| 3.M.6 | Find perimeters of polygons given the side lengths or given an unknown side length. | 3.M.7 | Find perimeters of polygons given the side lengths or given an unknown side length. |
| | | 3.M.6 | Multiply side lengths to find areas of rectangles with whole-number side lengths to solve real-world problems and other mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. |

| 2023 Indiana Academic Standard | | 2020 Indiana Academic Standard | |
|---|---|---|---|
| **Domain: Data Analysis** | | **Domain: Data Analysis** | |
| **Number** | **Text** | **Number** | **Text** |
| 3.DA.1 | Collect, organize, and graph data from observations, surveys, and experiments using scaled bar graphs and pictographs. Solve real-world problems by analyzing and interpreting the data using grade-level computation and comparison strategies. (E) | 3.DA.1 | Create scaled picture graphs, scaled bar graphs, and frequency tables to represent a data set—including data collected through observations, surveys, and experiments—with several categories. Solve one- and two-step "how many more" and "how many less" problems regarding the data and make predictions based on the data. |

| | | |
|---|---|---|
| | **3.DA.2** | Generate measurement data by measuring lengths with rulers to the nearest quarter of an inch. Display the data by making a line plot, where the horizontal scale is marked off in appropriate units, such as whole numbers, halves, or quarters. |