Grade 2 | Indiana Academic Standards for Mathematics
Correlation to *Eureka Math*²™

When the original *Eureka Math*® curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher–writers have created *Eureka Math*²™, a groundbreaking new curriculum that helps teachers deliver *exponentially better* math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math*² carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

*Eureka Math*² employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

*Eureka Math*² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math*² teacher–writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math*² add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Process Standards for Mathematics	Aligned Components of *Eureka Math²*
PS.1: Make sense of problems and persevere in solving them. Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway, rather than simply jumping into a solution attempt. They consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" and "Is my answer reasonable?" They understand the approaches of others to solving complex problems and identify correspondences between different approaches. Mathematically proficient students understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	While lessons in every module engage students in making sense of problems and persevering in solving them, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M2: Addition and Subtraction Within 200
PS.2: Reason abstractly and quantitatively. Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	While lessons in every module engage students in reasoning abstractly and quantitatively, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M2: Addition and Subtraction Within 200

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PS.3: Construct viable arguments and critique the reasoning of others. Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They analyze situations by breaking them into cases and recognize and use counterexamples. They organize their mathematical thinking, justify their conclusions and communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. They justify whether a given statement is true always, sometimes, or never. Mathematically proficient students participate and collaborate in a mathematics community. They listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.	While lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M2: Addition and Subtraction Within 200 2 M3: Shapes and Time with Fraction Concepts 2 M4: Addition and Subtraction Within 1,000

Process Standards for Mathematics	Aligned Components of *Eureka Math²*
PS.4: Model with mathematics. Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life, society, and the workplace using a variety of appropriate strategies. They create and use a variety of representations to solve problems and to organize and communicate mathematical ideas. Mathematically proficient students apply what they know and are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	While lessons in every module engage students in modeling with mathematics, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M6: Multiplication and Division Foundations
PS.5: Use appropriate tools strategically. Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Mathematically proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. Mathematically proficient students identify relevant external mathematical resources, such as digital content, and use them to pose or solve problems. They use technological tools to explore and deepen their understanding of concepts and to support the development of learning mathematics. They use technology to contribute to concept development, simulation, representation, reasoning, communication and problem solving.	While lessons in every module engage students in using appropriate tools strategically, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M4: Addition and Subtraction Within 1,000

Process Standards for Mathematics	Aligned Components of *Eureka Math²*
PS.6: Attend to precision. Mathematically proficient students communicate precisely to others. They use clear definitions, including correct mathematical language, in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They express solutions clearly and logically by using the appropriate mathematical terms and notation. They specify units of measure and label axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently and check the validity of their results in the context of the problem. They express numerical answers with a degree of precision appropriate for the problem context.	While lessons in every module engage students in attending to precision, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M3: Shapes and Time with Fraction Concepts 2 M4: Addition and Subtraction Within 1,000 2 M5: Money, Data, and Customary Measurement
PS.7: Look for and make use of structure. Mathematically proficient students look closely to discern a pattern or structure. They step back for an overview and shift perspective. They recognize and use properties of operations and equality. They organize and classify geometric shapes based on their attributes. They see expressions, equations, and geometric figures as single objects or as being composed of several objects.	While lessons in every module engage students in looking for and making use of structure, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M2: Addition and Subtraction Within 200 2 M3: Shapes and Time with Fraction Concepts 2 M5: Money, Data, and Customary Measurement 2 M6: Multiplication and Division Foundations

Process Standards for Mathematics	Aligned Components of *Eureka Math²*
PS.8: Look for and express regularity in repeated reasoning. Mathematically proficient students notice if calculations are repeated and look for general methods and shortcuts. They notice regularity in mathematical problems and their work to create a rule or formula. Mathematically proficient students maintain oversight of the process, while attending to the details as they solve a problem. They continually evaluate the reasonableness of their intermediate results.	While lessons in every module engage students in looking for and expressing regularity in repeated reasoning, this mathematical practice is specifically addressed in the following modules: 2 M1: Place Value Concepts Through Metric Measurement and Data · Place Value, Counting, and Comparing Within 1,000 2 M2: Addition and Subtraction Within 200 2 M6: Multiplication and Division Foundations

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Number Sense	**2.NS.1** Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number.	2 M1 Topic E: Understand Place Value Units 2 M1 Lesson 24: Count up to 1,000 by using place value units. 2 M1 Topic G: Model Base-Ten Numbers Within 1,000 with Money 2 M1 Topic H: Compose and Decompose with Place Value Disks 2 M1 Lesson 37: Organize, count, represent, and compare collections of objects. 2 M3 Lesson 17: Relate the clock to a number line to count by fives. 2 M4 Lesson 1: Organize, count, and represent a collection of objects. 2 M4 Lesson 24: Organize, count, and represent a collection of objects. 2 M6 Topic A: Count and Problem Solve with Equal Groups 2 M6 Topic B: Arrays and Equal Groups
	2.NS.2 Read and write whole numbers up to 1,000. Use words, models, standard form and expanded form to represent and show equivalent forms of whole numbers up to 1,000.	2 M1 Part 2: Place Value, Counting, and Comparing Within 1,000

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	2.NS.3 Plot and compare whole numbers up to 1,000 on a number line.	2 M1 Topic D: Solve *Compare* Problems by Using the Ruler as a Number Line 2 M1 Topic I: Compare Two Three-Digit Numbers in Different Forms 2 M4 Lesson 14: Use compensation to keep a constant difference by adding the same amount to both numbers. 2 M4 Lesson 23: Solve two-step addition and subtraction word problems. 2 M5 Lesson 12: Identify unknown numbers on a number line by using the interval as a reference point. *Supplemental material is necessary to address comparison of numbers using a number line.*
	2.NS.4 Match the ordinal numbers first, second, third, etc., with an ordered set up to 30 items.	*Supplemental material is necessary to address ordinal numbers.*
	2.NS.5 Determine whether a group of objects (up to 20) has an odd or even number of members (e.g., by placing that number of objects in two groups of the same size and recognizing that for even numbers no object will be left over and for odd numbers one object will be left over, or by pairing objects or counting them by 2s).	2 M6 Topic D: The Meaning of Even and Odd Numbers

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	2.NS.6 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones (e.g., 706 equals 7 hundreds, 0 tens, and 6 ones). Understand that 100 can be thought of as a group of ten tens—called a "hundred." Understand that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	2 M1 Part 2: Place Value, Counting, and Comparing Within 1,000 2 M2 Lesson 2: Break apart and add like units. 2 M2 Topic B: Strategies for Composing a Ten and a Hundred to Add 2 M2 Topic D: Strategies for Decomposing a Ten and a Hundred to Subtract
	2.NS.7 Use place value understanding to compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	2 M1 Topic I: Compare Two Three-Digit Numbers in Different Forms
Computation and Algebraic Thinking	**2.CA.1** Add and subtract fluently within 100.	2 M1 Topic A: Represent Data to Solve Problems 2 M2: Addition and Subtraction Within 200 2 M4: Addition and Subtraction Within 1,000 2 M5 Topic A: Problem Solving with Coins and Bills 2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums within 20 from memory.

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	2.CA.2 Solve real-world problems involving addition and subtraction within 100 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 drawings and equations with a symbol for the unknown number to represent the problem). Use estimation to decide whether answers are reasonable in addition problems.	2 M1 Lesson 22: Use counting strategies to solve *add to with change unknown* word problems. 2 M2 Topic A: Simplifying Strategies for Addition 2 M2 Lesson 8: Use concrete models to compose a ten. 2 M2 Lesson 9: Use place value drawings to compose a ten and relate to written recordings. 2 M2 Topic C: Simplifying Strategies for Subtraction 2 M2 Topic D: Strategies for Decomposing a Ten and a Hundred to Subtract 2 M4 Topic A: Mental Place Value Strategies 2 M4 Topic E: Apply Efficient Addition and Subtraction Strategies 2 M5 Topic A: Problem Solving with Coins and Bills 2 M5 Topic C: Use Measurement and Data to Solve Problems 2 M6 Lesson 4: Represent equal groups with a tape diagram. 2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.
	2.CA.3 Solve real-world problems involving addition and subtraction within 100 in situations involving lengths that are given in the same units (e.g., by using drawings, such as drawings of rulers, and equations with a symbol for the unknown number to represent the problem).	2 M1 Lesson 14: Represent and compare students' heights. 2 M1 Topic D: Solve *Compare* Problems by Using the Ruler as a Number Line 2 M5 Topic C: Use Measurement and Data to Solve Problems

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	2.CA.4 Add and subtract within 1,000, 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 or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and that sometimes it is necessary to compose or decompose tens or hundreds.	2 M1 Lesson 22: Use counting strategies to solve *add to with change unknown* word problems. 2 M1 Topic F: Three-Digit Numbers in Different Forms 2 M1 Topic G: Model Base-Ten Numbers Within 1,000 with Money 2 M1 Lesson 32: Exchange 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. 2 M2: Addition and Subtraction Within 200 2 M4: Addition and Subtraction Within 1,000 2 M5 Topic A: Problem Solving with Coins and Bills
	2.CA.5 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal groups.	2 M6: Multiplication and Division Foundations
	2.CA.6 Show that the order in which two numbers are added (commutative property) and how the numbers are grouped in addition (associative property) will not change the sum. These properties can be used to show that numbers can be added in any order.	2 M2: Addition and Subtraction Within 200 2 M4: Addition and Subtraction Within 1,000

Strands	Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
	2.CA.7 Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1,000.	2 M1 Lesson 22: Use counting strategies to solve *add to with change unknown* word problems. 2 M1 Lesson 23: Organize, count, and record a collection of objects. 2 M1 Lesson 24: Count up to 1,000 by using place value units. 2 M1 Lesson 28: Use place value understanding to count and exchange $1, $10, and $100 bills. 2 M1 Lesson 29: Count by $1, $10, and $100. 2 M1 Lesson 33: Model numbers with more than 9 ones or 9 tens. 2 M4 Lesson 1: Organize, count, and represent a collection of objects. 2 M6 Lesson 15: Pair objects and skip-count to determine whether a number is even or odd. 2 M6 Lesson 16: Use rectangular arrays to investigate combinations of even and odd numbers.
Geometry	**2.G.1** Identify, describe, and classify two- and three-dimensional shapes (triangle, square, rectangle, cube, right rectangular prism) according to the number and shape of faces and the number of sides and/or vertices. Draw two-dimensional shapes.	2 M3 Topic A: Attributes of Geometric Shapes 2 M5 Lesson 13: Solve word problems that involve measurements and reason about estimates.

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	2.G.2 Create squares, rectangles, triangles, cubes, and right rectangular prisms using appropriate materials.	2 M3 Lesson 4: Use attributes to identify, classify, and compose different quadrilaterals. 2 M3 Lesson 5: Relate the square to the cube and use attributes to describe a cube. 2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes. 2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths.
	2.G.3 Investigate and predict the result of composing and decomposing two- and three-dimensional shapes.	2 M3 Lesson 4: Use attributes to identify, classify, and compose different quadrilaterals. 2 M3 Lesson 5: Relate the square to the cube and use attributes to describe a cube. 2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes. 2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths.
	2.G.4 Partition a rectangle into rows and columns of same-size (unit) squares and count to find the total number of same-size squares.	2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division 2 M6 Lesson 14: Relate doubles to even numbers and write equations to express the sums.
	2.G.5 Partition circles and rectangles into two, three, or four equal parts; describe the shares using the words halves, thirds, half of, a third of, etc.; and describe the whole as two halves, three thirds, four fourths. Recognize that equal parts of identical wholes need not have the same shape.	2 M3 Topic B: Composite Shapes and Fraction Concepts 2 M3 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles

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Measurement	**2.M.1** Describe the relationships among inch, foot, and yard. Describe the relationship between centimeter and meter.	2 M1 Lesson 8: Make a meter stick and measure with various tools. 2 M1 Lesson 9: Relate 1 cm, 10 cm, and 100 cm. 2 M5 Lesson 8: Iterate an inch tile to create a unit ruler and measure to the nearest inch. 2 M5 Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.
	2.M.2 Estimate and measure the length of an object by selecting and using appropriate tools, such as rulers, yardsticks, metersticks, and measuring tapes to the nearest inch, foot, yard, centimeter and meter.	2 M1 Topic B: Metric Measurement and Concepts About the Ruler 2 M1 Topic C: Estimate, Measure, and Compare Lengths 2 M1 Lesson 17: Represent and solve comparison problems by using measurement contexts. 2 M5 Topic B: Use Customary Units to Measure and Estimate Length
	2.M.3 Understand that the length of an object does not change regardless of the units used. Measure the length of an object twice using length units of different lengths for the two measurements. Describe how the two measurements relate to the size of the unit chosen.	2 M5 Topic B: Use Customary Units to Measure and Estimate Length
	2.M.4 Estimate and measure volume (capacity) using cups and pints.	*Supplemental material is necessary to address customary volume.*

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	2.M.5 Tell and write time to the nearest five minutes from analog clocks, using a.m. and p.m. Solve real-world problems involving addition and subtraction of time intervals on the hour or half hour.	2 M3 Topic D: Application of Fractions to Tell Time 3 M6 Topic A: Tell Time and Solve Time Interval Problems
	2.M.6 Describe relationships of time, including: seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year.	2 M3 Topic D: Application of Fractions to Tell Time 2 M3 Math Past: A Tale of Time *Supplemental material is necessary to address days, weeks, and months in a year.*
	2.M.7 Find the value of a collection of pennies, nickels, dimes, quarters and dollars.	2 M5 Topic A: Problem Solving with Coins and Bills
Data Analysis	**2.DA.1** Draw a picture graph (with single-unit scale) and a bar graph (with single-unit scale) to represent a data set with up to four choices (What is your favorite color? red, blue, yellow, green). Solve simple put-together, take-apart, and compare problems using information presented in the graphs.	2 M1 Topic A: Represent Data to Solve Problems 2 M2 Lesson 2: Break apart and add like units. 2 M2 Lesson 15: Use compensation to subtract within 100.