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

About *Eureka Math*

Created by Great Minds®, a mission-driven Public Benefit Corporation, *Eureka Math*® helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

Aligned

Great Minds offers detailed analyses that demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

Data

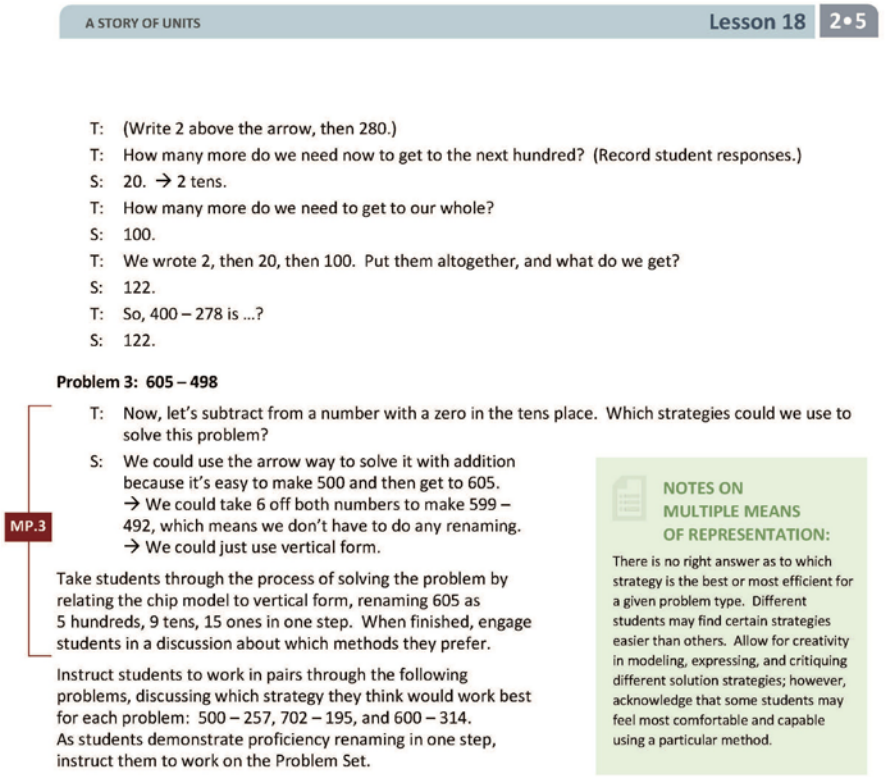
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

Full Suite of Resources

Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

Mathematics Process Standards	Aligned Components of *Eureka Math*
PS.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical processes. These are designated in the Module Overview and labeled in lessons. For example: 
PS.2 Reason abstractly and quantitatively.	
PS.3 Construct viable arguments and critique the reasoning of others.	
PS.4 Model with mathematics.	
PS.5 Use appropriate tools strategically.	
PS.6 Attend to precision.	
PS.7 Look for and make use of structure.	
PS.8 Look for and express regularity in repeated reasoning.	

Number Sense

Students fluently count, read, and represent numbers up to 1,000 using place value concepts.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.NS.1 Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number. (E)	G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Lesson 12: Change 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. G2 M3 Lesson 15: Explore a situation with more than 9 groups of ten. G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number G2 M6 Lesson 18: Pair objects and skip-count to relate to even numbers. G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. *Supplemental material is necessary to fully address counting by twos to* 1,000.
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. (E)	G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 6: Write base ten numbers in expanded form. G2 M3 Lesson 7: Write, read, and relate base ten numbers in all forms. G2 M3 Lesson 11: Count the total value of ones, tens, and hundreds with place value disks. G2 M3 Lesson 13: Read and write numbers within 1,000 after modeling with place value disks. G2 M3 Lesson 14: Model numbers with more than 9 ones or 9 tens; write in expanded, unit, standard, and word forms. G2 M3 Lesson 15: Explore a situation with more than 9 groups of ten. G2 M3 Topic F: Comparing Two Three-Digit Numbers

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.NS.3 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 twos).	G2 M6 Topic D: The Meaning of Even and Odd Numbers
2.NS.4 Define and model a "hundred" as a group of ten tens. Model place value concepts of three-digit numbers, multiples of 100, and equivalent forms of whole numbers using objects and drawings. (E)	G2 M3 Topic A: Forming Base Ten Units of Ten, a Hundred, and a Thousand G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 7: Write, read, and relate base ten numbers in all forms. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Topic E: Modeling Numbers Within 1,000 with Place Value Disks G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number
2.NS.5 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. (E)	G2 M3 Topic F: Comparing Two Three-Digit Numbers

Computation and Algebraic Thinking

Within the numbers 1–100, students apply place value concepts and addition and subtraction concepts to solve real-world problems and reason about their strategies and solutions. Students explore effects of properties of addition on solutions and investigate number patterns, and apply concepts of addition and subtraction within 1,000.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.CA.1 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. (E)	G2 M1 Lesson 5: Make a ten to add within 100. G2 M1 Lesson 8: Take from ten within 100. G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 31: Solve two-step word problems within 100. G2 M6 Lesson 9: Solve word problems involving addition of equal groups in rows and columns. *Supplemental material is necessary to address using estimation to decide whether answers are reasonable in addition problems.*
2.CA.2 Using number sense and place value strategies, add and subtract within 1,000, including composing and decomposing tens and hundreds. Use models, 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.	G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Topic B: Initiating Fluency with Addition and Subtraction Within 100 G2 M4 Topic B: Strategies for Composing a Ten G2 M4 Topic C: Strategies for Decomposing a Ten G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten. G2 M4 Lesson 18: Use manipulatives to represent additions with two compositions. G2 M4 Lesson 19: Relate manipulative representations to a written method. G2 M4 Lesson 20: Use math drawings to represent additions with up to two compositions and relate drawings to a written method.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.CA.2 ***continued***	G2 M4 Lesson 21: Use math drawings to represent additions with up to two compositions and relate drawings to a written method. G2 M4 Topic E: Strategies for Decomposing Tens and Hundreds G2 M4 Topic F: Student Explanations of Written Methods G2 M5 Topic A: Strategies for Adding and Subtracting Within 1,000 G2 M5 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 G2 M5 Topic C: Strategies for Decomposing Tens and Hundreds Within 1,000 G2 M5 Topic D: Student Explanations for Choice of Solution Methods
2.CA.3 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. (E)	G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Topic B: Initiating Fluency with Addition and Subtraction Within 100 G2 M1 Lesson 3: Add and subtract like units. G2 M1 Lesson 4: Make a ten to add within 20. G2 M1 Lesson 5: Make a ten to add within 100. G2 M3 Lesson 6: Write base ten numbers in expanded form. G2 M4 Lesson 3: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 4: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units. G2 M4 Lesson 29: Use and explain the totals below method using words, math drawings, and numbers. G2 M4 Lesson 30: Compare totals below to new groups below as written methods. G2 M5 Lesson 5: Use the associative property to make a hundred in one addend. G2 M5 Lesson 7: Share and critique solution strategies for varied addition and subtraction problems within 1,000.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.CA.4 Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1,000.	G2 M3 Lesson 21: Complete a pattern counting up and down. G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, 10 less to addition and subtraction of 1 and 10. G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. *Supplemental material is necessary to fully address this standard.*

Geometry

Students investigate and classify two- and three-dimensional shapes based on faces, sides, and vertices, and investigate the results of composing and decomposing each shape. Students continue to build foundational fraction knowledge through specific partitioning and naming of rectangles and circles.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.G.1 Identify, describe, and classify two- and three-dimensional shapes (i.e., 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.	G1 M5 Lesson 3: Find and name three-dimensional shapes including cone and rectangular prism, based on defining attributes of faces and points. G2 M8 Topic A: Attributes of Geometric Shapes
2.G.2 Investigate and predict the result of composing and decomposing two- and three-dimensional shapes.	G1 M5 Topic B: Part–Whole Relationships Within Composite Shapes G2 M8 Topic B: Composite Shapes and Fraction Concepts

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.G.3 Partition a rectangle into rows and columns of same-size (unit) squares and count to find the total number of same-size squares.	G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division
2.G.4 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, or four fourths. Recognize that equal parts of identical wholes need not have the same shape.	G2 M8 Topic B: Composite Shapes and Fraction Concepts G2 M8 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles G2 M8 Lesson 13: Construct a paper clock by partitioning a circle into halves and quarters, and tell time to the half hour or quarter hour.

Measurement

Students use appropriate tools, computation strategies, and relationships of measurement to solve real-world problems including measurements of length and capacity, telling time to the nearest five minutes, and collections of coins and dollars.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.M.1 Describe the relationships among an inch, foot, and yard. Describe the relationship between a centimeter and meter.	G2 M2 Lesson 4: Measure various objects using centimeter rulers and meter sticks. G2 M2 Lesson 6: Measure and compare lengths using centimeters and meters. G2 M7 Lesson 16: Measure various objects using inch rulers and yardsticks. G2 M7 Lesson 19: Measure to compare the differences in length using inches, feet, and yards.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.M.2 Estimate and measure the length of an object by selecting and using appropriate tools, such as rulers, yardsticks, meter sticks, and measuring tapes to the nearest inch, foot, yard, centimeter, and meter. (E)	G2 M2 Topic A: Understand Concepts About the Ruler G2 M2 Topic B: Measure and Estimate Length Using Different Measurement Tools G2 M2 Lesson 6: Measure and compare lengths using centimeters and meters. G2 M2 Topic D: Relate Addition and Subtraction to Length G2 M7 Topic C: Creating an Inch Ruler G2 M7 Lesson 16: Measure various objects using inch rulers and yardsticks. G2 M7 Lesson 17: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks.
2.M.3 Estimate and measure volume (capacity) using cups and pints. Add and subtract to solve real-world problems involving capacities that are given in the same units or obtained through investigations. (E)	*Supplemental material is necessary to address this standard.*
2.M.4 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. (E)	G2 M8 Topic D: Application of Fractions to Tell Time

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.M.5 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.	*Supplemental material is necessary to address this standard.*
2.M.6 Find the value of a collection of pennies, nickels, dimes, quarters, and dollars. (E)	G2 M7 Topic B: Problem Solving with Coins and Bills

Data Analysis

Students interact with a variety of data collection models and evaluate mathematical relationships within the data using grade-level appropriate strategies.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
2.DA.1 Collect, organize, and graph data from observations, surveys, and investigations using scaled bar graphs and pictographs (limit scale to 2s, 5s, 10s, and 100s); interpret mathematical relationships within the data using grade-level addition, subtraction, and comparison strategies. (E)	G2 M7 Topic A: Problem Solving with Categorical Data G2 M7 Topic F: Displaying Measurement Data G3 M6 Topic A: Generate and Analyze Categorical Data