Grade 2 | Arkansas Mathematics Standards 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

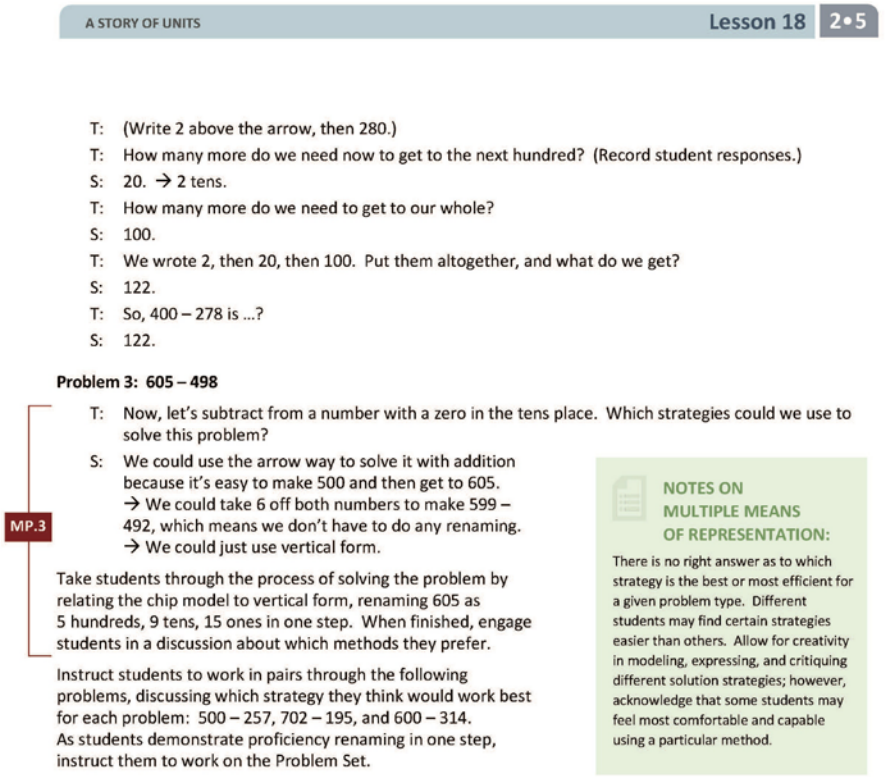
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

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

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

Number & Place Value

Counting

Students extend the counting sequence.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.NPV.1 Count within 1,000 forwards and backwards by ones, tens, and hundreds from any given number.	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

Number & Place Value

Place Value

Students understand the base ten place value system.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.NPV.2 Identify the value of hundreds, tens, and ones place in a three-digit number.	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

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.NPV.3 Read, write, and represent whole numbers up to 1,000 using concrete models or drawings, number names, and a variety of expanded forms.	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
2.NPV.4 Mentally add 10 or 100 to a given number in the range of 100–900 and mentally subtract 10 or 100 from a given number in the range of 100–900.	G2 M3 Lesson 19: Model and use language to tell about 1 more and 1 less, 10 more and 10 less, and 100 more and 100 less. G2 M3 Lesson 21: Complete a pattern counting up and down. G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. G2 M4 Lesson 2: Add and subtract multiples of 10 including counting on to subtract. 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 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten. G2 M5 Lesson 1: Relate 10 more, 10 less, 100 more, and 100 less to addition and subtraction of 10 and 100. G2 M5 Lesson 2: Add and subtract multiples of 100, including counting on to subtract. G2 M5 Lesson 3: Add multiples of 100 and some tens within 1,000. G2 M5 Lesson 4: Subtract multiples of 100 and some tens within 1,000. G2 M5 Lesson 5: Use the associative property to make a hundred in one addend.

Number & Place Value

Comparison

Students use place value understanding to compare numbers.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.NPV.5 Compare two three-digit numbers using symbols (<, =, >) based on the value of hundreds, tens, and ones in the given numbers.	G2 M3 Topic F: Comparing Two Three-Digit Numbers

Number & Place Value

Fraction Foundations

Students build a conceptual understanding of fractions.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.NPV.6 Partition circles and rectangles into two, three, or four equal shares, describing the shares using the words halves, thirds, and fourths (or quarters).	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.
2.NPV.7 Recognize that equal shares 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.

Computation & Algebraic Reasoning

Operations & Properties

Students perform operations using place value understanding and properties of operations.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.CAR.1 Use mental strategies to fluently add and subtract within 20 with mastery by the end of second grade.	G2 M1 Topic A: Foundations for Fluency with Sums and Differences 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.
2.CAR.2 Use computational fluency to add and subtract within 100 using strategies based on place value, properties of operations, or the relationship between addition and subtraction.	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. 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

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.CAR.3 Add up to four two-digit numbers with sums not exceeding 100 using strategies based on place value and properties of operations.	G2 M4 Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units.
2.CAR.4 Use a number line to solve addition and subtraction problems within 100.	G2 M2 Lesson 8: Solve addition and subtraction word problems using the ruler as a number line. G2 M7 Lesson 21: Identify unknown numbers on a number line diagram by using the distance between numbers and reference points. G2 M7 Lesson 22: Represent two-digit sums and differences involving length by using the ruler as a number line. G2 M7 Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.
2.CAR.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 addends.	G2 M6 Topic A: Formation of Equal Groups G2 M6 Topic B: Arrays and Equal Groups G2 M6 Lesson 10: Use square tiles to compose a rectangle, and relate to the array model. G2 M6 Lesson 11: Use square tiles to compose a rectangle, and relate to the array model. G2 M6 Lesson 13: Use square tiles to decompose a rectangle. G2 M6 Lesson 15: Use math drawings to partition a rectangle with square tiles, and relate to repeated addition.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.CAR.6 Use concrete models, drawings, or equations to solve addition and subtraction problems within 1,000.	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. 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

Computation & Algebraic Reasoning

Problem Solving

Students solve real-world problems.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.CAR.7 Solve one and two-step real-world problems involving addition and subtraction within 100 in situations of adding to, taking from, putting together, taking apart, and comparing unknowns in all positions.	G2 M1 Lesson 2: Practice making the next ten and adding to a multiple of ten. 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.

Computation & Algebraic Reasoning

Algebraic Concepts

Students develop and apply understanding of foundational algebraic concepts.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.CAR.8 Determine whether a group of objects up to 20 has an odd or even number of members; write an equation to express an even number as a sum of two equal addends.	G2 M6 Topic D: The Meaning of Even and Odd Numbers

Geometry & Measurement

Shapes

Students analyze attributes of shapes to develop generalizations about their properties.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.GM.1 Identify, describe, and draw two-dimensional shapes.	G2 M8 Topic A: Attributes of Geometric Shapes G2 M8 Lesson 6: Combine shapes to create a composite shape; create a new shape from composite shapes.
2.GM.2 Identify and describe three-dimensional shapes based on the shape, number of faces, number of edges, and number of vertices.	G2 M8 Topic A: Attributes of Geometric Shapes G2 M8 Lesson 6: Combine shapes to create a composite shape; create a new shape from composite shapes.

Geometry & Measurement

Length & Width

Students investigate measurement using rulers.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.GM.3 Select appropriate measurement tools to estimate and measure the length of an object to the nearest whole inch or whole centimeters.	G2 M2 Topic A: Understand Concepts About the Ruler 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 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. G2 M7 Lesson 19: Measure to compare the differences in length using inches, feet, and yards.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.GM.4 Demonstrate how the length of an object does not change, regardless of the units used to measure it, by measuring the length of an object twice; use two different length units, describing how the two measurements relate to the size of the chosen unit.	G2 M2 Lesson 7: Measure and compare lengths using standard metric length units and non-standard length units; relate measurement to unit size. G2 M7 Lesson 18: Measure an object twice using different length units and compare; relate measurement to unit size.
2.GM.5 Measure to determine how much longer or shorter one object is than another, expressing the length difference in terms of a standard length whole unit.	G2 M2 Lesson 6: Measure and compare lengths using centimeters and meters. G2 M2 Lesson 9: Measure lengths of string using measurement tools, and use tape diagrams to represent and compare the lengths. G2 M7 Lesson 19: Measure to compare the differences in length using inches, feet, and yards.
2.GM.6 Solve real-world problems involving lengths of the same units, using addition and subtraction within 100.	G2 M2 Topic D: Relate Addition and Subtraction to Length G2 M7 Lesson 20: Solve two-digit addition and subtraction word problems involving length by using tape diagrams and writing equations to represent the problem.

Geometry & Measurement

Perimeter, Area, & Volume

Students explore the perimeter and area of shapes.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.GM.7 Solve real-world and mathematical problems to find the perimeter of polygons.	G3 M7 Topic C: Problem Solving with Perimeter G3 M7 Topic D: Recording Perimeter and Area Data on Line Plots G3 M7 Topic E: Problem Solving with Perimeter and Area G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.GM.8 Partition a rectangle into rows and columns of same-size squares, counting the total number of squares to find the area.	G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division

Geometry & Measurement

Time & Money

Students explore time and money values and concepts.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.GM.9 Using an analog clock, tell and write time to the nearest five minutes using colon notation and indicate a.m. or p.m.	G2 M8 Topic D: Application of Fractions to Tell Time
2.GM.10 Describe relationships of time.	G2 M8 Topic D: Application of Fractions to Tell Time
2.GM.11 Solve real-world problems involving addition and subtraction of time intervals in half hours or hours.	G2 M8 Topic D: Application of Fractions to Tell Time
2.GM.12 Count collections of mixed coins and solve real-world problems involving quarters, dimes, nickels, and pennies within 99¢ and whole dollar amounts.	G2 M7 Topic B: Problem Solving with Coins and Bills

Data Analysis

Charts, Graphs, & Tables

Students organize and analyze data.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
2.DA.1 Use bar graphs, picture graphs, and line plots to organize and represent data, interpreting data with up to four categories.	G2 M7 Topic A: Problem Solving with Categorical Data G2 M7 Topic F: Displaying Measurement Data
2.DA.2 Ask and answer simple put together, take apart, and compare problems, using information presented in the bar graphs, picture graphs, and line plots.	G2 M7 Topic A: Problem Solving with Categorical Data G2 M7 Topic F: Displaying Measurement Data