# EUREKA MATH<sup>2</sup>...

### Grade 2 | Arkansas Academic Standards – Mathematics Correlation to Eureka Math<sup>2™</sup>

When the original *Eureka Math*<sup>®</sup> curriculum was released, it quickly became the most widely used K-5 mathematics curriculum in the country. Now, the Great Minds<sup>®</sup> teacher-writers have created *Eureka Math*<sup>2TM</sup>, 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*<sup>2</sup> 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* and moments that have been delighting students and teachers for years, it also boasts these exciting new features:

### Teachability

*Eureka Math*<sup>2</sup> employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering highquality 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*<sup>2</sup> 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*<sup>2</sup> 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*<sup>2</sup> 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.

Standards for Mathematical Practice	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>MP.1</b>	Lessons in every module engage students in mathematical practices.
Make sense of problems and persevere in solving them.	These are indicated in margin notes included with every lesson.
MP.2	Lessons in every module engage students in mathematical practices.
Reason abstractly and quantitatively.	These are indicated in margin notes included with every lesson.
<b>MP.3</b>	Lessons in every module engage students in mathematical practices.
Construct viable arguments and critique the reasoning of others.	These are indicated in margin notes included with every lesson.
MP.4	Lessons in every module engage students in mathematical practices.
Model with mathematics.	These are indicated in margin notes included with every lesson.
MP.5	Lessons in every module engage students in mathematical practices.
Use appropriate tools strategically.	These are indicated in margin notes included with every lesson.
MP.6	Lessons in every module engage students in mathematical practices.
Attend to precision.	These are indicated in margin notes included with every lesson.
<b>MP.7</b>	Lessons in every module engage students in mathematical practices.
Look for and make use of structure.	These are indicated in margin notes included with every lesson.
MP.8	Lessons in every module engage students in mathematical practices.
Look for and express regularity in repeated reasoning.	These are indicated in margin notes included with every lesson.

### **Operations and Algebraic Thinking**

AR.Math.Content.2.OA.A Represent and solve problems involving addition and subtraction.

### Arkansas Academic Standards – Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

AR.Math.Content.2.OA.A.1 2 M1 Lesson 22: Use counting strategies to solve <i>add to with change unknown</i> word problems.	-
Use addition and subtraction within 2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition.	
100 to solve one- and two-step word problems involving situations of adding	
problems involving situations of adding to, taking from, putting together, taking 2 M2 Lesson 19: Solve word problems with simplifying strategies for subtraction.	
apart, and comparing, with unknowns 2 M2 Lesson 26: Solve <i>add to</i> and <i>take from with start unknown</i> word problems.	
in all positions. Represent a strategy with a related equation including a number for	
a related equation including a symbol for the unknown number. 2 M4 Lesson 4: Represent and solve <i>compare with bigger unknown</i> word problems.	
2 M4 Lesson 22: Solve compare with smaller unknown word problems.	
2 M4 Lesson 23: Solve two-step addition and subtraction word problems.	
2 M6 Lesson 1: Compose equal groups and write repeated addition equations.	
2 M6 Lesson 4: Represent equal groups with a tape diagram.	
2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.	

### **Operations and Algebraic Thinking** AR.Math.Content.2.OA.B Add and subtract within 20.

# Arkansas Academic Standards -<br/>MathematicsAligned Components of Eureka Math2AR.Math.Content.2.OA.B.22 M4 Lesson 7: Use concrete models to add and relate them to written recordings.Fluently add and subtract within 20<br/>using mental strategies. By the end<br/>of Grade 2, know from memory all sums<br/>of two one-digit numbers.2 M4 Lesson 8: Use place value drawings to represent addition and relate them to written<br/>recordings, part 1.<br/>2 M4 Lesson 9: Use place value drawings to represent addition and relate them to written<br/>recordings, part 2.

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.OA.B.2 continued	2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.
	2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.
	2 M4 Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000

### **Operations and Algebraic Thinking**

AR.Math.Content.2.OA.C Work with equal groups of objects to gain foundations for multiplication.

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.OA.C.3	2 M6 Topic B: Arrays and Equal Groups
Determine whether a group of objects (up to 20) has an odd or even number of members (e.g., by pairing objects or counting them by 2s). Write an equation to express an even number (up to 20) as a sum of two equal addends.	<ul> <li>2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division</li> <li>2 M6 Lesson 14: Relate doubles to even numbers and write equations to express the sums.</li> <li>2 M6 Lesson 15: Pair objects and skip-count to determine whether a number is even or odd.</li> <li>2 M6 Lesson 16: Use rectangular arrays to investigate combinations of even and odd numbers.</li> <li>2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.</li> </ul>
AR.Math.Content.2.OA.C.4	2 M6 Topic A: Count and Problem Solve with Equal Groups
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.	2 M6 Topic B: Arrays and Equal Groups 2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division 2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.

### Number and Operations in Base Ten

AR.Math.Content.2.NBT.A Understand place value.

### Arkansas Academic Standards – Mathematics

### Aligned Components of *Eureka Math*<sup>2</sup>

AR.Math.Content.2.NBT.A.1	2 M1 Lesson 20: Count and bundle ones, tens, and hundreds to 1,000.
Understand that the three digits of a	2 M1 Lesson 23: Organize, count, and record a collection of objects.
three-digit number represent amounts of hundreds, tens, and ones; e.g., 726	2 M1 Lesson 24: Count up to 1,000 by using place value units.
equals 7 hundreds, 2 tens, and 6 ones.	2 M1 Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents.
Understand that $100  ext{ can be thought of as}$	2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms.
a group of ten tens–called a "hundred." Understand that the numbers 100, 200,	2 M1 Lesson 28: Use place value understanding to count and exchange $\$1,\$10$ , and $\$100$ bills.
300, 400, 500, 600, 700, 800, 900 refer	2 M1 Lesson 30: Determine how many \$10 bills are equal to \$1,000.
to one, two, three, four, five, six, seven,	2 M1 Topic H: Compose and Decompose with Place Value Disks
eight, or nine groups of 100.	
AR.Math.Content.2.NBT.A.2	2 M1 Lesson 21: Count efficiently within 1,000 by using ones, tens, and hundreds.
Count within $1,000$ . Skip-count by 5s, $10$ s,	2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems.
and 100s beginning at zero.	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 29: Count by \$1, \$10, and \$100.
	2 M1 Lesson 30: Determine how many \$10 bills are equal to \$1,000.
	2 M1 Lesson 37: Organize, count, represent, and compare a collection of objects.
	2 M3 Lesson 17: Relate the clock to a number line to count by fives.
	2 M3 Lesson 18: Tell time to the nearest 5 minutes.

Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.NBT.A.3	2 M1 Lesson 23: Organize, count, and record a collection of objects.
Read and write numbers to 1,000 using base-ten numerals, number names, and a variety of expanded forms. Model and describe numbers within 1,000 as groups of 10 in a variety of ways.	<ul> <li>2 M1 Lesson 26: Write base-ten numbers in expanded form.</li> <li>2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms.</li> <li>2 M1 Lesson 30: Determine how many \$10 bills are equal to \$1,000.</li> <li>2 M1 Lesson 31: Count the total value of ones, tens, and hundreds with place value disks.</li> </ul>
	2 M1 Lesson 37: Organize, count, represent, and compare a collection of objects. 2 M1 Lesson 38: Compare numbers in different forms.
AR.Math.Content.2.NBT.A.4	2 M1 Topic I: Compare Two Three-Digit Numbers in Different Forms
Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols and correct terminology for the symbols to record the results of comparisons.	

# Arkansas Academic Standards -

### Number and Operations in Base Ten

AR.Math.Content.2.NBT.B Use place value understanding and properties of operations to add and subtract.

Arkansas Academic Standards – Mathematics	Aligned Components of Eureka Math <sup>2</sup>
AR.Math.Content.2.NBT.B.5	2 M4 Lesson 4: Represent and solve compare with bigger unknown word problems.
Add and subtract within 100 with computational fluency using strategies based on place value, properties of operations, and the relationship between addition and subtraction.	<ul> <li>2 M4 Lesson 5: Use the associative property to make a benchmark number to add within 1,000.</li> <li>2 M4 Lesson 6: Use compensation to add within 1,000.</li> <li>2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.</li> <li>2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.</li> <li>2 M4 Lesson 12: Take from a ten or a hundred to subtract.</li> </ul>

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.NBT.B.5 continued	2 M4 Lesson 13: Use compensation to subtract within 1,000.
	2 M4 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy.
	2 M4 Lesson 22: Solve compare with smaller unknown word problems.
	2 M4 Lesson 23: Solve two-step addition and subtraction word problems.
AR.Math.Content.2.NBT.B.6	2 M2 Lesson 1: Reason about addition with four addends.
Add up to four two-digit numbers using strategies based on place value and properties of operations.	2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.
AR.Math.Content.2.NBT.B.7	2 M2 Lesson 2: Break apart and add like units.
Add and subtract within 1,000, using	2 M2 Lesson 3: Use compensation to add within 100.
concrete models or drawings and strategies based on place value,	2 M2 Lesson 4: Use compensation to add within 200.
properties of operations, and the	2 M2 Lesson 5: Make a ten to add within 100.
relationship between addition and	2 M2 Lesson 6: Make a ten to add within 200.
subtraction; relate the strategy to a written expression or equation.	2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition.
	2 M2 Topic B: Strategies for Composing a Ten and a Hundred to Add
	2 M2 Lesson 14: Use addition and subtraction strategies to find an unknown part.
	2 M2 Lesson 15: Use compensation to subtract within 100.
	2 M2 Lesson 16: Use compensation to subtract within 200.
	2 M2 Lesson 17: Take from a ten to subtract within 200.
	2 M2 Lesson 18: Take from a hundred to subtract within 200.
	2 M2 Lesson 19: Solve word problems with simplifying strategies for subtraction.
	2 M2 Lesson 20: Reason about when to unbundle a ten to subtract.
	2 M2 Lesson 21: Use concrete models to decompose a ten with two-digit totals.

## Arkansas Academic Standards -

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.NBT.B.7 continued	2 M2 Lesson 22: Use place value drawings to decompose a ten and relate them to written recordings.
	2 M2 Lesson 23: Use concrete models and drawings to decompose a hundred.
	2 M2 Lesson 24: Use place value drawings to decompose a hundred and relate them to written recordings.
	2 M2 Lesson 25: Use place value drawings to subtract with two decompositions.
	2 M4 Lesson 5: Use the associative property to make a benchmark number to add within 1,000.
	2 M4 Lesson 6: Use compensation to add within 1,000.
	2 M4 Lesson 7: Use concrete models to add and relate them to written recordings.
	2 M4 Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1.
	2 M4 Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2.
	2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.
	2 M4 Topic C: Simplifying Strategies for Subtracting Within 1,000
	2 M4 Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000
	2 M4 Lesson 21: Apply strategies to find sums and differences and relate addition to subtraction.
	2 M4 Lesson 24: Organize, count, and represent a collection of objects.
AR.Math.Content.2.NBT.B.8	2 M4 Lesson 1: Organize, count, and represent a collection of objects.
Mentally add 10 or 100 to a given number	2 M4 Lesson 2: Mentally add and subtract multiples of 10 and 100 with unknowns in various positions.
100-900, and mentally subtract 10 or 100 from a given number 100-900.	2 M4 Lesson 3: Solve multi-step word problems and reason about equal expressions.

# Arkansas Academic Standards –

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math<sup>2</sup></i>
AR.Math.Content.2.NBT.B.9	2 M4 Lesson 5: Use the associative property to make a benchmark number to add within 1,000.
Explain why addition and subtraction	2 M4 Lesson 6: Use compensation to add within 1,000.
strategies work, using place value and the properties of operations.	2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.
the properties of operations.	2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.
	2 M4 Topic C: Simplifying Strategies for Subtracting Within 1,000
	2 M4 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy.
	2 M4 Lesson 21: Apply strategies to find sums and differences and relate addition to subtraction.

# Automatica Annalauto Chandanda

### **Measurement and Data**

AR.Math.Content.2.MD.A Measure and estimate lengths in standard units.

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.MD.A.1	2 M1 Lesson 5: Connect measurement to physical units by iterating a centimeter cube.
Measure the length of an object	2 M1 Lesson 6: Make a $10~{ m cm}$ ruler and measure objects.
by selecting and using appropriate tools	2 M1 Lesson 7: Measure lengths and relate 10 cm and 1 cm.
such as rulers, yardsticks, meter sticks, and measuring tapes.	2 M1 Lesson 8: Make a meter stick and measure with various tools.
5 1	2 M1 Lesson 13: Estimate and measure height to model metric relationships.
	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.

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.MD.A.2	2 M5 Lesson 10: Measure an object twice by using different length units and compare and relate measurement to unit size.
Measure the length of an object twice with two different length units. Describe how the two measurements relate to the size of the unit chosen.	
AR.Math.Content.2.MD.A.3	2 M1 Lesson 11: Estimate and compare lengths.
Estimate lengths using units of inches, feet, centimeters, and meters.	2 M1 Lesson 13: Estimate and measure height to model metric relationships.
	2 M5 Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.
AR.Math.Content.2.MD.A.4	2 M1 Lesson 11: Estimate and compare lengths.
Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	2 M1 Lesson 12: Model and reason about the difference in length.
	2 M1 Lesson 14: Represent and compare students' heights.
	2 M5 Lesson 11: Measure to compare differences in lengths.

# Arkansas Academic Standards -

### **Measurement and Data**

AR.Math.Content.2.MD.B Relate addition and subtraction to length.

Arkansas Academic Standards – Mathematics	Aligned Components of Eureka Math <sup>2</sup>
AR.Math.Content.2.MD.B.5	2 M1 Lesson 17: Represent and solve comparison problems by using measurement contexts.
Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, and write equations with a symbol for the unknown number to represent the problem.	<ul> <li>2 M1 Lesson 18: Solve <i>compare with difference unknown</i> word problems by using measurement contexts.</li> <li>2 M1 Lesson 19: Solve <i>compare with difference unknown</i> word problems in various contexts.</li> </ul>
	<ul> <li>2 M5 Lesson 13: Solve word problems that involve measurements and reason about estimates.</li> <li>2 M5 Lesson 14: Solve addition and subtraction two-step word problems that involve length.</li> </ul>

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.MD.B.6	2 M1 Topic D: Solve Compare Problems by Using the Ruler as a Number Line
Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,, and solve addition and subtraction problems within 100 on the number line diagram.	2 M5 Lesson 12: Identify unknown numbers on a number line by using the interval as a reference point.

### . .

### **Measurement and Data**

### AR.Math.Content.2.MD.C Work with time and money.

Arkansas Academic Standards – Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
AR.Math.Content.2.MD.C.7	2 M3 Lesson 14: Distinguish between a.m. and p.m.
Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	2 M3 Lesson 16: Use a clock to tell time to the half hour or quarter hour. 2 M3 Lesson 17: Relate the clock to a number line to count by fives.
	2 M3 Lesson 18: Tell time to the nearest 5 minutes.
AR.Math.Content.2.MD.C.8	2 M5 Topic A: Problem Solving with Coins and Bills
Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.	

### **Measurement and Data**

AR.Math.Content.2.MD.D Represent and interpret data.

### Arkansas Academic Standards -Aligned Components of Eureka Math<sup>2</sup> **Mathematics** AR.Math.Content.2.MD.D.9 2 M5 Lesson 15: Use measurement data to create a line plot. Generate data by measuring the 2 M5 Lesson 16: Create a line plot to represent data and ask and answer questions. same attribute of similar objects to the nearest whole unit. Display the measurement data by making a line plot, where the horizontal scale is marked off in whole-number units. Generate data from multiple measurements of the same object. Make a line plot, where the horizontal scale is marked off in whole-number units, to compare precision of measurements. AR.Math.Content.2.MD.D.10 2 M1 Topic A: Represent Data to Solve Problems Draw a picture graph and a bar graph, with single-unit scale, to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

### Geometry

AR.Math.Content.2.G.A Reason with shapes and their attributes.

### Arkansas Academic Standards – Aligned Components of Eureka Math<sup>2</sup> **Mathematics** AR.Math.Content.2.G.A.1 2 M3 Topic A: Attributes of Geometric Shapes 2 M3 Lesson 6: Recognize that a whole polygon can be decomposed into smaller parts and the parts Recognize and draw shapes having specified attributes (e.g., number can be composed to make a whole. of angles, number of sides, or a given 2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from number of equal faces). Identify triangles, composite shapes. quadrilaterals, pentagons, hexagons, and cubes. AR.Math.Content.2.G.A.2 2 M6 Lesson 11: Decompose an array to find the total efficiently. Partition a rectangle into rows and 2 M6 Lesson 12: Reason about how equal arrays can be composed differently. columns of same-size squares and count 2 M6 Lesson 13: Decompose an array and relate it to a number bond. to find the total number of squares. 2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, AR.Math.Content.2.G.A.3 and fourths. Partition circles and rectangles into two, three, or four equal shares, describe the 2 M3 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths. shares using the words halves, thirds, half 2 M3 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. 2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, AR.Math.Content.2.G.A.4 and fourths. Recognize that equal shares of identical wholes need not have the same shape. 2 M3 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths. 2 M3 Lesson 10: Partition circles and rectangles into equal parts and describe those parts as halves. 2 M3 Lesson 11: Partition circles and rectangles into equal parts, and describe those parts as halves, thirds, and fourths. 2 M3 Lesson 13: Recognize that equal parts of an identical rectangle can be different shapes.