## Grade 2 | Alabama Standards for Mathematical Content Correlation to Eureka Math ${ }^{\mathbf{2 ®}}$

When the original Eureka Math ${ }^{\circledR}$ curriculum was released, it quickly became the most widely used K-5 mathematics curriculum in the country. Now, the Great Minds ${ }^{\circledR}$ 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 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 Math² 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 Math² 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.

## Aligned Components of Eureka Math ${ }^{2}$

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

## Operations and Algebraic Thinking

## Represent and solve problems involving addition and subtraction.

Alabama Standards for
Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.OA. 1

Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem

2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems.
2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition.
2 M2 Lesson 13: Represent and solve take from word problems.
2 M2 Lesson 19: Solve word problems with simplifying strategies for subtraction.
2 M2 Lesson 26: Solve add to and take from with start unknown word problems.
2 M2 Lesson 27: Solve two-step word problems within 100.
2 M4 Lesson 3: Solve multi-step word problems and reason about equal expressions.
2 M4 Lesson 4: Represent and solve compare with bigger unknown 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

## Add and subtract within 20.

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.OA. 2

Fluently add and subtract within 20 using mental strategies such as counting on, making ten, decomposing a number leading to ten, using the relationship between addition and subtraction, and creating equivalent but easier or known sums.

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 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
2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.

2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.

## Operations and Algebraic Thinking

## Work with equal groups of objects to gain foundations for multiplication.

## Alabama Standards for <br> Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

### 2.0A. 3

Use concrete objects to determine whether a group of up to 20 objects is even or odd.
2.OA.3.a
Write an equation to express an even
number as a sum of two equal addends

## 2.OA. 4

Using concrete and pictorial representations and repeated addition, determine the total number of objects in a rectangular array with up to 5 rows and up to 5 columns.

2 M6 Topic B: Arrays and Equal Groups
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 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.
2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.
2 M6 Lesson 14: Relate doubles to even numbers and write equations to express the sums.
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.
2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.

2 M6 Topic A: Count and Problem Solve with Equal Groups
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.

## 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.

## Operations and Algebraic Thinking

## Understand simple patterns.

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

### 2.0A. 5

Supplemental material is necessary to address this standard.
Reproduce, extend, create, and describe patterns and sequences using a variety of materials.

## Operations with Numbers: Base Ten

## Understand place value.

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.NBT. 6

Explain that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.

## 2.NBT.6.a

Explain the following three-digit numbers as special cases: 100 can be thought of as a bundle of ten tens, called a "hundred," and 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 Lesson 24: Count up to 1,000 by using place value units.
2 M1 Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents.
2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms.
2 M1 Lesson 28: Use place value understanding to count and exchange $\$ 1, \$ 10$, and $\$ 100$ bills.
2 M1 Lesson 30: Determine how many $\$ 10$ bills are equal to $\$ 1,000$.
2 M1 Topic H: Compose and Decompose with Place Value Disks

2 M1 Lesson 20: Count and bundle ones, tens, and hundreds to 1,000.
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 25: Write three-digit numbers in unit form and show the value that each digit represents.
2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms.
2 M1 Lesson 28: Use place value understanding to count and exchange $\$ 1, \$ 10$, and $\$ 100$ bills.
2 M1 Lesson 30: Determine how many $\$ 10$ bills are equal to $\$ 1,000$.
2 M1 Topic H: Compose and Decompose with Place Value Disks

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.NBT. 7 <br> Count within 1,000 by ones, fives, tens,

 and hundreds.2 M1 Lesson 21: Count efficiently within 1,000 by using ones, tens, and hundreds.
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 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.

2 M1 Lesson 23: Organize, count, and record a collection of objects.
2 M1 Lesson 26: Write base-ten numbers in expanded form.
2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms.
2 M1 Lesson 31: Count the total value of ones, tens, and hundreds with place value disks.
2 M1 Lesson 38: Compare numbers in different forms.

## 2.NBT. 9

Compare two three-digit numbers based on the value of the hundreds, tens, and ones digits, recording the results of comparisons with the symbols $>$, $=$, and < and orally with the words "is greater than," "is equal to," and "is less than."

2 M1 Topic I: Compare Two Three-Digit Numbers in Different Forms

## Operations with Numbers: Base Ten

## Use place value understanding and properties of operations to add and subtract.

Alabama Standards for
Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.NBT. 10

Fluently add and subtract within 100 , using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2 M4 Lesson 4: Represent and solve compare with bigger unknown word problems.
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 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 Lesson 12: Take from a ten or a hundred to subtract.
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.
2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.

2 M2 Lesson 1: Reason about addition with four addends.
2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.

2 M2 Lesson 2: Break apart and add like units.
2 M2 Lesson 3: Use compensation to add within 100.
2 M2 Lesson 4: Use compensation to add within 200.
2 M2 Lesson 5: Make a ten to add within 100.
2 M2 Lesson 6: Make a ten to add within 200
2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition.

## Aligned Components of Eureka Math²

## 2.NBT. 12 continued

[^0]
## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.NBT.12.a

Explain that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

2 M2 Topic B: Strategies for Composing a Ten and a Hundred to Add
2 M2 Lesson 21: Use concrete models to decompose a ten with two-digit totals.
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 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 D: Strategies for Decomposing Tens and Hundreds Within 1,000

## 2.NBT. 13

Mentally add and subtract 10 or 100 to a given number between 100 and 900 .

## 2.NBT. 14

Explain why addition and subtraction strategies work, using place value and the properties of operations.

2 M4 Lesson 1: Organize, count, and represent a collection of objects.
2 M4 Lesson 2: Mentally add and subtract multiples of 10 and 100 with unknowns in various positions.
2 M4 Lesson 3: Solve multi-step word problems and reason about equal expressions.

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 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 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.

## Data Analysis

## Collect and analyze data and interpret results.

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

| 2.DA.15 <br> Measure lengths of several objects to the <br> nearest whole unit. | This standard is fully addressed by the lessons aligned to its subsection. |
| :--- | :--- |
| 2.DA.15.a <br> Create a line plot where the horizontal <br> scale is marked off in whole-number <br> units to show the lengths of several <br> measured objects. | 2 M5 Lesson 16: Create a line plot to represent data and ask and answer questions. |
| 2.DA.16 | 2 Lesson 15: Use measurement data to create a line plot. |
| Create a picture graph and bar graph to <br> represent data with up to four categories. | 2 M1 Topic A: Represent Data to Solve Problems |
| 2.DA.16.a <br> Using information presented in a bar <br> graph, solve simple "put-together," <br> "take-apart," and "compare" problems. | 2 M1 Lesson 3: Use information presented in a bar graph to solve put together and <br> take apart problems. <br> 2 M1 Lesson 4: Use information presented in a bar graph to solve compare problems. |
| 2.DA.16.b <br> Using Venn diagrams, pictographs, and <br> "yes-no" charts, analyze data to predict <br> an outcome. | 2 M1 Lesson 1: Draw and label a picture graph to represent data. |

## Measurement

## Measure and estimate lengths in standard units.

## Alabama Standards for <br> Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.M. 17

Measure the length of an object by selecting and using standard units of measurement shown on rulers, yardsticks, meter sticks, or measuring tapes.

## 2.M. 18

Measure objects with two different units, and describe how the two measurements relate to each other and the size of the unit chosen.

2 M1 Lesson 5: Connect measurement to physical units by iterating a centimeter cube.
2 M1 Lesson 6: Make a 10 cm ruler and measure objects.
2 M1 Lesson 7: Measure lengths and relate 10 cm and 1 cm .
2 M1 Lesson 8: Make a meter stick and measure with various tools.
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.

2 M5 Lesson 10: Measure an object twice by using different length units and compare and relate measurement to unit size.

2 M1 Lesson 11: Estimate and compare lengths.
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.

2 M1 Lesson 11: Estimate and compare lengths.
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.

## Measurement

## Relate addition and subtraction to length.

## Alabama Standards for <br> Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.M. 21

Use addition and subtraction within 100 to solve word problems involving same units of length, representing the problem with drawings (such as drawings of rulers) and/or equations with a symbol for the unknown number.
2.M. 22

Create a number line diagram using whole numbers and use it to represent whole-number sums and differences within 100.

2 M1 Lesson 17: Represent and solve comparison problems by using measurement contexts.
2 M1 Lesson 18: Solve compare with difference unknown word problems by using measurement contexts.

2 M1 Lesson 19: Solve compare with difference unknown word problems in various contexts.
2 M5 Lesson 13: Solve word problems that involve measurements and reason about estimates.
2 M5 Lesson 14: Solve addition and subtraction two-step word problems that involve length.

2 M1 Topic D: Solve Compare Problems by Using the Ruler as a Number Line
2 M5 Lesson 12: Identify unknown numbers on a number line by using the interval as a reference point.

## Measurement

 Work with time and money.
## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math²

## 2.M. 23

Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

2 M3 Lesson 14: Distinguish between 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.

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math²

| 2.M.23.a <br> Express an understanding of common <br> terms such as, but not limited to, <br> quarter past, half past, and quarter to. | 2 M3 Lesson 14: Distinguish between a.m. and p.m. |
| :--- | :--- |
| 2.M.24 | 2 M3 Lesson 16: Use a clock to tell time to the half hour or quarter hour. |
| Solve problems with money. | This standard is fully addressed by the lessons aligned to its subsections. |
| 2.M.24.a | 2 M5 Lesson 1: Organize, count, and represent a collection of coins. |

Identify nickels and quarters by name and value.

## 2.M.24.b

Find the value of a collection of quarters, dimes, nickels, and pennies.
2.M.24.C

Solve word problems by adding and subtracting within one dollar, using the $\$$ and $\$$ symbols appropriately (not including decimal notation).

## Geometry

## Reason with shapes and their attributes.

Alabama Standards for
Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

2.G. 25

Identify triangles, quadrilaterals, pentagons, hexagons, and cubes
$\xrightarrow{ }$
2.G.25.a

Recognize and draw shapes having specified attributes.
2.G.26
Partition a rectangle into rows and
columns of same-size squares, and count
to find the total number of squares.

Partition a rectangle into rows and to find the total number of squares.

2 M3 Lesson 2: Use attributes to identify, build, and describe two-dimensional shapes.
2 M3 Lesson 3: Identify, build, and describe right angles and parallel lines.
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 6: Recognize that a whole polygon can be decomposed into smaller parts and the parts can be composed to make a whole.

2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes.

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 can be composed to make a whole.

2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes.

2 M6 Lesson 11: Decompose an array to find the total efficiently.
2 M6 Lesson 12: Reason about how equal arrays can be composed differently.
2 M6 Lesson 13: Decompose an array and relate it to a number bond.

## Alabama Standards for Mathematical Content

## Aligned Components of Eureka Math ${ }^{2}$

## 2.G. 27

Partition circles and rectangles into two, three, or four equal shares. Describe the shares using such terms as halves, thirds, half of, or a third of, and describe the whole as two halves, three thirds, or four fourths.

## 2.G.27.a

Explain that equal shares of identical wholes need not have the same shape.

2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths.

2 M3 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths.
2 M3 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles

2 M3 Lesson 13: Recognize that equal parts of an identical rectangle can be different shapes.


[^0]:    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.
    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.

