



Grade 2 | Tennessee Academic Standards for Mathematics Correlation to Eureka Math^{2®} Tennessee Edition

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® *Tennessee Edition*, 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 *Tennessee Edition* 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 Math² Tennessee Edition 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 Math² Tennessee Edition 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 Tennessee Edition 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 *Tennessee Edition* 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

MP.1 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 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 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 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 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 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 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 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

2.OA.A Represent and solve problems involving addition and subtraction.

Tennessee Academic Standards for Mathematics

Aligned Components

2.OA.A.1

Add and subtract within 100 to solve one- and two-step contextual problems, with unknowns in all positions, involving situations of add to, take from, put together/take apart, and compare. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem.

- 2 M1 Lesson 24: Use counting strategies to solve add to with change unknown word problems.
- 2 M2 Lesson 9: Solve word problems by using simplifying strategies for addition.
- 2 M2 Lesson 15: Represent and solve take from word problems.
- 2 M2 Lesson 21: Solve word problems with simplifying strategies for subtraction.
- 2 M2 Lesson 28: Solve add to and take from with start unknown word problems.
- 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

2.OA.B Add and subtract within 30.

Tennessee Academic Standards for Mathematics

Aligned Components

2.OA.B.2

Fluently add and subtract within 30 using mental strategies. By the end of 2nd grade, know all sums of two one-digit numbers and related subtraction facts.

- 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

Operations and Algebraic Thinking

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

Tennessee Academic Standards for Mathematics

Aligned Components

2.OA.C.3

Determine whether a group of objects (up to 20) has an odd or even number of members by pairing objects or counting them by 2s. Write an equation to express an even number as a sum of two 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 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.

Aligned Components

2.0A.C.4

Use repeated 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 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.

Operations and Algebraic Thinking

2.OA.D Solve problems involving addition and subtraction and identify and explain patterns in arithmetic.

Tennessee Academic Standards for Mathematics

Aligned Components

2.OA.D.1

Identify arithmetic patterns in an addition or hundreds chart and explain them using properties of operations.

- 2 M2 Lesson 1: Identify patterns on an addition chart.
- 2 M2 Lesson 4: Identify patterns on a hundreds chart.

Number and Operations in Base Ten

2.NBT.A Understand place value.

Tennessee Academic Standards for Mathematics

Aligned Components

2.NBT.A.1	2 M1 Lesson 22: Count and bundle ones, tens, and hundreds to 1,000.
Know that the three digits of a three-digit number represent amounts of hundreds, tens, and ones (e.g., 706 can be represented in multiple ways as 7 hundreds, 0 tens, and 6 ones; 706 ones; or 70 tens and 6 ones).	2 M1 Lesson 25: Organize, count, and record a collection of objects.
	2 M1 Lesson 26: Count up to 1,000 by using place value units.
	2 M1 Lesson 27: Write three-digit numbers in unit form and show the value that each digit represents.
	2 M1 Lesson 29: Read, write, and relate base-ten numbers in all forms.
	2 M1 Lesson 30: Use place value understanding to count and exchange \$1, \$10, and \$100 bills.
	2 M1 Lesson 32: Determine how many \$10 bills are equal to \$1,000.
	2 M1 Topic H: Compose and Decompose with Place Value Disks
2.NBT.A.2	2 M1 Lesson 23: Count efficiently within 1,000 by using ones, tens, and hundreds.
Recognize, describe, extend, and create patterns when counting by ones, twos, fives, tens, and hundreds and use those patterns to predict the next number in the counting sequence up to 1,000 through counting.	2 M1 Lesson 24: Use counting strategies to solve add to with change unknown word problems.
	2 M1 Lesson 25: Organize, count, and record a collection of objects.
	2 M1 Lesson 26: Count up to 1,000 by using place value units.
	2 M1 Lesson 31: Count by \$1, \$10, and \$100.
	2 M1 Lesson 32: Determine how many \$10 bills are equal to \$1,000.
	2 M1 Lesson 39: Organize, count, represent, and compare a collection of objects.
2.NBT.A.3	2 M1 Lesson 25: Organize, count, and record a collection of objects.
Read and write numbers to 1,000 using standard form, word form, and expanded form.	2 M1 Lesson 28: Write base-ten numbers in expanded form.
	2 M1 Lesson 29: Read, write, and relate base-ten numbers in all forms.
	2 M1 Lesson 33: Count the total value of ones, tens, and hundreds with place value disks.
	2 M1 Lesson 40: Compare numbers in different forms.

Aligned Components

2.NBT.A.4

Compare two three-digit numbers based on the meanings of the digits in each place and use the symbols >, =, and < to show the relationship.

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

Number and Operations in Base Ten

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

Tennessee Academic Standards for Mathematics

Aligned Components

2.NBT.B.5

Fluently add and subtract within 100 using properties of operations, strategies based on place value, 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.NBT.B.6

Add up to four two-digit numbers using properties of operations and strategies based on place value.

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

Aligned Components

2.NBT.B.7

Add and subtract within 1,000 using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to explain the reasoning used.

- 2 M2 Lesson 3: Break apart and add like units.
- 2 M2 Lesson 5: Use compensation to add within 100.
- 2 M2 Lesson 6: Use compensation to add within 200.
- 2 M2 Lesson 7: Make a ten to add within 100.
- 2 M2 Lesson 8: Make a ten to add within 200.
- 2 M2 Lesson 9: 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 16: Use addition and subtraction strategies to find an unknown part.
- 2 M2 Lesson 17: Use compensation to subtract within 100.
- 2 M2 Lesson 18: Use compensation to subtract within 200.
- 2 M2 Lesson 19: Take from a ten to subtract within 200.
- 2 M2 Lesson 20: Take from a hundred to subtract within 200.
- 2 M2 Lesson 21: Solve word problems with simplifying strategies for subtraction.
- 2 M2 Lesson 22: Reason about when to unbundle a ten to subtract.
- 2 M2 Lesson 23: Use concrete models to decompose a ten with two-digit totals.
- 2 M2 Lesson 24: Use place value drawings to decompose a ten and relate them to written recordings.
- 2 M2 Lesson 25: Use concrete models and drawings to decompose a hundred.
- 2 M2 Lesson 26: Use place value drawings to decompose a hundred and relate them to written recordings.
- 2 M2 Lesson 27: Use place value drawings to subtract with two decompositions.
- 2 M4 Topic B: Strategies for Composing Tens and Hundreds Within $1{,}000$
- 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.

Aligned Components

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Mentally add or subtract 10 or 100 to/from any given number within 1,000.

- 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.

Measurement and Data

2.MD.A Measure and estimate lengths in standard units.

Tennessee Academic Standards for Mathematics

Aligned Components

2.MD.A.1

Measure the length of an object in whole number units by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

- 2 M1 Lesson 7: Connect measurement to physical units by iterating a centimeter cube.
- 2 M1 Lesson 8: Make a 10 cm ruler and measure objects.
- 2 M1 Lesson 9: Measure lengths and relate $10~\mathrm{cm}$ and $1~\mathrm{cm}$.
- 2 M1 Lesson 10: Make a meter stick and measure with various tools.
- 2 M1 Lesson 15: 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.MD.A.2

Measure the length of an object using two different whole number units of measure and describe how the two measurements relate to the size of the unit chosen. 2 M5 Lesson 10: Measure an object twice by using different length units, and compare and relate measurement to unit size.

Aligned Components

2.MD.A.3	2 M1 Lesson 13: Estimate and compare lengths.
Estimate lengths using whole number units of inches, feet, yards, centimeters, and meters.	2 M1 Lesson 15: 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.MD.A.4	2 M1 Lesson 13: Estimate and compare lengths.
Measure, using whole number lengths, to determine how much longer one object is than another and express the difference in terms of a standard unit of length.	 2 M1 Lesson 14: Model and reason about the difference in length. 2 M1 Lesson 16: Represent and compare students' heights. 2 M5 Lesson 11: Measure to compare differences in lengths.

Measurement and Data

2.MD.B Relate addition and subtraction to length.

Tennessee Academic Standards for Mathematics

Aligned Components

2.MD.B.5

Add and subtract within 100 to solve contextual problems, with the unknown in any position, involving lengths that are given in the same units by using drawings and equations with a symbol for the unknown to represent the problem.

- 2 M1 Lesson 19: Represent and solve comparison problems by using measurement contexts.
- 2 M1 Lesson 20: Solve *compare with difference unknown* word problems by using measurement contexts.
- 2 M1 Lesson 21: 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.

Aligned Components

2.MD.B.6

Represent whole numbers as lengths from 0 on a number line and know that the points corresponding to the numbers on the number line are equally spaced. Use a number line to represent whole number sums and differences of lengths within 100.

- 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 and Data

2.MD.C Work with time and money.

Tennessee Academic Standards for Mathematics

Aligned Components

2.MD.C.7

Tell and write time in quarter hours and to the nearest five minutes (in a.m. and p.m.) using analog and digital clocks.

- 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 negrest 5 minutes.

2.MD.C.8

Solve contextual problems involving amounts less than one dollar including quarters, dimes, nickels, and pennies using the ¢ symbol appropriately. Solve contextual problems involving whole number dollar amounts up to \$100 using the \$ symbol appropriately.

2 M5 Topic A: Problem Solving with Coins and Bills

Measurement and Data

2.MD.D Represent and interpret data.

Tennessee Academic Standards for Mathematics

Aligned Components

2.MD.D.9	2 M5 Lesson 15: Use measurement data to create a line plot. 2 M5 Lesson 16: Create a line plot to represent data and ask and answer questions. off	
Given a set of data, create a line plot, where the horizontal scale is marked off in whole-number units.		
2.MD.D.10	2 M1 Topic A: Represent Data to Solve Problems	
Draw a pictograph (with a key of values of $1, 2, 5$, or 10) and a bar graph (with intervals of one) to represent a data set with up to four categories. Solve addition and subtraction problems related to the data in a graph.		

Geometry

2.G.A Reason about shapes and their attributes.

Tennessee Academic Standards for Mathematics

Aligned Components

2.G.A.1

Identify triangles, quadrilaterals, pentagons, and hexagons. Draw two-dimensional shapes having specified attributes (as determined directly or visually, not by measuring), such as a given number of angles/vertices or a given number of sides of equal length.

- 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.

Aligned Components

2.0.7.2
Partition a rectangle into rows and
columns of same-sized squares and find
the total number of squares.

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.

2.G.A.3

2 G A 2

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