



# Grade 2 | North Dakota Mathematics K-12 Standards Correlation to Eureka Math<sup>2®</sup>

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*<sup>2®</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 aha 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 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 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*<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.

# **Math Attributes**

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

K-2.MA.P	Lessons in every module engage students in math attributes. These are	
Learners can identify and use strategies to problem-solve situations and determine an appropriate solution.	indicated in margin notes included with every lesson.	
K-2.MA.C	Lessons in every module engage students in math attributes. These are	
Learners can make connections and demonstrate relationships using words, pictures, or symbols.	indicated in margin notes included with every lesson.	
K-2.MA.R	Lessons in every module engage students in math attributes. These are	
Learners can use prior knowledge and experiences to explain their thinking.	indicated in margin notes included with every lesson.	

Number and Operations: Learners will develop a foundational understanding of the number system, operations, and computational fluency to create connections and solve problems within and across concepts.

2.NO.CC Counting and Cardinality: Learners will understand the relationship between numerical symbols, names, quantities, and counting sequences.

### North Dakota Mathematics K-12 Standards

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

2.NO.CC.1	2 M1 Lesson 21: Count efficiently within $1{,}000$ by using ones, tens, and hundreds.
Count forward from any given number	2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems.
within 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 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.NO.CC.2	2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems.
Count backward from any given number within $1,000$ .	Supplemental material is necessary to fully address this standard.
2.NO.CC.3	2 M1 Lesson 23: Organize, count, and record a collection of objects.
Read and write numbers up to 1,000 using standard, word, and expanded forms.	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.

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

#### 2.NO.CC.4

Skip count forward and backward by 2s and 100s and recognize the patterns of skip counts.

- 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.

Number and Operations: Learners will develop a foundational understanding of the number system, operations, and computational fluency to create connections and solve problems within and across concepts.

2.NO.NBT Base Ten: Learners will understand the place value structure of the base-ten number system and represent, compare, and perform operations with multi-digit whole numbers and decimals.

### North Dakota Mathematics K-12 Standards

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

#### 2.NO.NBT.1

Understand that the three digits of a three-digit number represent a composition of some hundreds, some tens, and some ones.

- 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

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

2.NO.NBT.2	2 M1 Topic I: Compare Two Three-Digit Numbers in Different Forms
Compare two three-digit numbers using symbols >, <, and =. Justify comparisons based on the value of hundreds, tens, and ones.	
2.NO.NBT.3	2 M1 Topic D: Solve <i>Compare</i> Problems by Using the Ruler as a Number Line
Add within 100 using place value strategies and/or the relationship between addition and subtraction.	2 M2 Lesson 1: Reason about addition with four addends.
	2 M2 Lesson 8: Use concrete models to compose a ten.
	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.NO.NBT.4	2 M1 Topic D: Solve <i>Compare</i> Problems by Using the Ruler as a Number Line
Subtract within $100$ using place value strategies and/or the relationship between addition and subtraction.	2 M2 Lesson 20: Reason about when to unbundle a ten to subtract.
	2 M2 Lesson 22: Use place value drawings to decompose a ten and relate them to written recordings.
	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.NO.NBT.5	2 M4 Lesson 1: Organize, count, and represent a collection of objects.
Mentally add or subtract 10 or 100 to or from a given number between 100 and 900.	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.

Number and Operations: Learners will develop a foundational understanding of the number system, operations, and computational fluency to create connections and solve problems within and across concepts.

2.NO.NF Fractions: Learners will understand fractions and equivalency to represent, compare, and perform operations of fractions and decimals.

### North Dakota Mathematics K-12 Standards

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

2.NO.NF.1  Partition circles and rectangles into two, three, or four equal shares. Describe the shares using the language of halves, thirds, fourths, half of, a third of, and a fourth of.	<ul> <li>2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths.</li> <li>2 M3 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths.</li> <li>2 M3 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles</li> </ul>
2.NO.NF.2	2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds,
Recognize that identical wholes can	and fourths.
be equally divided in different ways.	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.NO.NF.3	2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds,
Recognize that partitioning shapes into	and fourths.
more equal shares creates smaller shares.	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 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.

Algebraic Reasoning: Learners will look for, generate, and make sense of patterns, relationships, and algebraic symbols to represent mathematical models while adopting approaches and solutions in novel situations.

2.AR.OA Operations and Algebraic Thinking: Learners will analyze patterns and relationships to generate and interpret numerical expressions.

### North Dakota Mathematics K-12 Standards

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

<b>2.AR.OA.1</b> Automatically add and subtract within 20.	2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.  Supplemental material is necessary to address this standard.
2.AR.OA.2	2 M2 Lesson 2: Break apart and add like units.
Apply the properties of operations to solve addition and subtraction equations within 100 and justify thinking.	2 M2 Lesson 3: Use compensation to add within 100.
	2 M2 Lesson 5: Make a ten to add within 100.
	2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition.
	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 M6 Lesson 18: Use various strategies to fluently add and subtract within $100$ and know all sums and differences within $20$ from memory.
2.AR.OA.3	2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems.
Solve one- and two-step authentic word problems with addition within $100$ , including the use of unknowns.	2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition.
	2 M2 Lesson 27: Solve two-step word problems within 100.
	2 M5 Lesson 14: Solve addition and subtraction two-step word problems that involve length.

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

2.AR.OA.4	2 M2 Lesson 13: Represent and solve <i>take from</i> word problems.
Solve one- and two-step authentic word problems with subtraction within $100$ , including the use of unknowns.	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 M5 Lesson 14: Solve addition and subtraction two-step word problems that involve length.
2.AR.OA.5	2 M6 Topic A: Count and Problem Solve with Equal Groups
Use repeated addition to find the total number of objects arranged in a rectangular array.	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.AR.OA.6	2 M6 Lesson 14: Relate doubles to even numbers and write equations to express the sums.
Identify a group of objects from 0 to 20 as even or odd by showing even numbers as a sum of two equal parts.	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.

Geometry and Measurement: Learners will use visualization, spatial reasoning, geometric modeling, and measurement to investigate the characteristics of figures, perform transformations, and construct logical arguments.

2.GM.G Geometry: Learners will compose and classify figures and shapes based on attributes and properties; represent and solve problems using a coordinate plane.

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

2.GM.G.1	2 M3 Topic A: Attributes of Geometric Shapes
Identify two-dimensional shapes (parallelograms and quadrilaterals).	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.GM.G.2	2 M3 Lesson 5: Relate the square to the cube and use attributes to describe a cube.
Identify two-dimensional shapes found within three-dimensional shapes.	Supplemental material is necessary to address this standard.
2.GM.G.3	2 M3 Topic A: Attributes of Geometric Shapes
Compose geometric shapes having specified geometric attributes, such	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.
as a given number of edges, angles, faces, vertices, and/or sides.	2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes.

Geometry and Measurement: Learners will use visualization, spatial reasoning, geometric modeling, and measurement to investigate the characteristics of figures, perform transformations, and construct logical arguments.

2.GM.M Measurement: Learners will represent and calculate measurement data, including time, money, and geometric measurement, and convert like measurement units within a given system.

#### North Dakota Mathematics K-12 Standards

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

# 2.GM.M.1

Measure the length of an object using two different standard units of measurement. Describe how the two measurements relate to the size of the units 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  $10~\mathrm{cm}$  and  $1~\mathrm{cm}$ .
- 2 M1 Lesson 8: Make a meter stick and measure with various tools.
- 2 M1 Lesson 9: Relate 1 cm, 10 cm, and 100 cm.
- 2 M1 Lesson 10: Reason about the relationship between the size of the unit and the number of units needed to measure.
- 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.GM.M.2

Estimate and measure to determine how much longer one object is than another, expressing the difference with a standard unit of measurement.

- 2 M1 Topic C: Estimate, Measure, and Compare Lengths
- 2 M5 Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.
- 2 M5 Lesson 11: Measure to compare differences in lengths.

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

2.GM.M.3  Tell and write time to the nearest five minutes (including quarter after and quarter to) with a.m. and p.m. using analog and digital clocks.	<ul> <li>2 M3 Lesson 14: Distinguish between a.m. and p.m.</li> <li>2 M3 Lesson 15: Recognize time as measurement units.</li> <li>2 M3 Lesson 16: Use a clock to tell time to the half hour or quarter hour.</li> <li>2 M3 Lesson 17: Relate the clock to a number line to count by fives.</li> <li>2 M3 Lesson 18: Tell time to the nearest 5 minutes.</li> </ul>
2.GM.M.4  Count collections of money (quarters, dimes, nickels, and pennies) relating to counting patterns by 1s, 5s, and 10s up to one dollar.	2 M5 Topic A: Problem Solving with Coins and Bills

Data, Probability, and Statistics: Learners will ask and answer questions by collecting, organizing, and displaying relevant data, drawing inferences and conclusions, making predictions, and understanding and applying basic concepts of probability.

2.DPS.D Data: Learners will represent and interpret data.

### North Dakota Mathematics K-12 Standards

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

2.DPS.D.1	2 M1 Topic A: Represent Data to Solve Problems
Formulate questions and collect, organize, and represent data with up to four categories using single unit scaled picture and bar graphs.	

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

2.DPS.D.2  Generate data and create line plots marked in whole-number units.	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.
2.DPS.D.3  Analyze data and interpret the results to solve one-step comparison problems using information from the graphs.	2 M1 Topic A: Represent Data to Solve Problems