Grade K | North Dakota Mathematics K–12 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

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

K.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*
K.NO.CC.1 Count verbally in sequential order by ones and tens to 100, making accurate decuple transitions (e.g., 89 to 90). Count verbally forward from any given number within 100.	GK M1 Topic G: One More Than with Numbers 0–10 GK M5 Lesson 13: Show, count, and write to answer how many questions in linear and array configurations. GK M5 Topic D: Extend the Say Ten and Regular Count Sequence to 100
K.NO.CC.2 Count backward from 20 by ones and from a given number within 10.	GK M1 Lesson 33: Order quantities from 10 to 1, and match numerals. GK M1 Lesson 34: Count down from 10 to 1, and state 1 less than a given number. GK M1 Lesson 35: Arrange number towers in order from 10 to 1, and describe the pattern. *Supplemental material is necessary to fully address this standard.*
K.NO.CC.3 Identify and write any given numeral within 20.	GK M1 Topic D: The Concept of Zero and Working with Numbers 0–5 GK M1 Topic E: Working with Numbers 6–8 in Different Configurations GK M1 Lesson 23: Organize and count 9 varied geometric objects in linear and array (3 threes) configurations. Place objects on 5-group mat. Match with numeral 9. GK M1 Lesson 24: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with a pencil. Number each object. GK M1 Lesson 25: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10. GK M1 Lesson 26: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10.

North Dakota Mathematics K–12 Standards	Aligned Components of *Eureka Math*
K.NO.CC.3 ***continued***	GK M5 Lesson 6: Model with objects and represent numbers 10 to 20 with place value or Hide Zero cards. GK M5 Lesson 7: Model and write numbers 10 to 20 as number bonds. GK M5 Lesson 8: Model teen numbers with materials from abstract to concrete. GK M5 Lesson 14: Show, count, and write to answer how many questions with up to 20 objects in circular configurations. GK M6 Lesson 8: Culminating task.
K.NO.CC.4 Recognize and verbally label arrangements, without counting, for briefly shown collections up to 10 (e.g., "I saw 5." How do you know?" "I saw 3 and 2, that is 5.").	*Supplemental material is necessary to address this standard.*
K.NO.CC.5 Count and tell how many objects up to 20 are in an arranged pattern or up to 10 objects in a scattered configuration. Represent a quantity of up to 20 with a numeral.	GK M1 Lesson 5: Classify items into three categories, determine the count in each, and reason about how the last number named determines the total. GK M1 Lesson 6: Sort categories by count. Identify categories with 2, 3, and 4 within a given scenario. GK M1 Topic C: Numbers to 5 in Different Configurations, Math Drawings, and Expressions GK M1 Topic D: The Concept of Zero and Working with Numbers 0–5 GK M1 Topic E: Working with Numbers 6–8 in Different Configurations GK M1 Lesson 23: Organize and count 9 varied geometric objects in linear and array (3 threes) configurations. Place objects on 5-group mat. Match with numeral 9. GK M1 Lesson 24: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with a pencil. Number each object.

North Dakota Mathematics K–12 Standards	Aligned Components of *Eureka Math*
K.NO.CC.5 ***continued***	GK M1 Lesson 25: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10. GK M1 Lesson 26: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10. GK M1 Lesson 27: Count 10 objects, and move between all configurations. GK M5 Lesson 1: Count straws into piles of ten; count the piles as 10 ones. GK M5 Lesson 2: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ____ ones. GK M5 Lesson 3: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ____ ones. GK M5 Lesson 6: Model with objects and represent numbers 10 to 20 with place value or Hide Zero cards. GK M5 Lesson 7: Model and write numbers 10 to 20 as number bonds. GK M5 Lesson 8: Model teen numbers with materials from abstract to concrete. GK M5 Topic C: Decompose Numbers 11–20, and Count to Answer "How Many?" Questions in Varied Configurations GK M5 Topic E: Represent and Apply Compositions and Decompositions of Teen Numbers GK M6 Lesson 8: Culminating task.

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.

K.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*
K.NO.NBT.1 Compose and decompose numbers from 11 to 19 using a group of ten ones and some more ones using a model, drawing, or equation.	GK M5 Lesson 2: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and ____ ones. GK M5 Lesson 3: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and ____ ones. GK M5 Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten. GK M5 Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten. GK M5 Topic B: Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers GK M5 Lesson 11: Show, count, and write numbers 11 to 20 in tower configurations increasing by 1—a pattern of 1 larger. GK M5 Lesson 12: Represent numbers 20 to 11 in tower configurations decreasing by 1—a pattern of 1 smaller. GK M5 Lesson 13: Show, count, and write to answer how many questions in linear and array configurations. GK M5 Lesson 14: Show, count, and write to answer how many questions with up to 20 objects in circular configurations. GK M5 Topic E: Represent and Apply Compositions and Decompositions of Teen Numbers

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K.NO.NBT.2 Compare two numbers between 1 and 20 using words greater than, less than, or equal to.	GK M3 Lesson 5: Determine which linking cube stick is longer than or shorter than the other. GK M3 Lesson 18: Compare using more than and the same as. GK M3 Lesson 19: Compare using fewer than and the same as. GK M3 Lesson 20: Relate more and less to length. GK M3 Lesson 22: Identify and create a set that has the same number of objects. GK M3 Lesson 23: Reason to identify and make a set that has 1 more. GK M3 Lesson 24: Reason to identify and make a set that has 1 less. GK M3 Topic G: Comparison of Numerals GK M5 Lesson 22: Decompose teen numbers as 10 ones and some ones; compare some ones to compare the teen numbers.

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.

K.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*
K.AR.OA.1 Automatically add and subtract within 5.	GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5
K.AR.OA.2 For any number from 1 to 9, find the number that makes 10 when added to the given number, sharing the answer with a model, drawing, or equation.	GK M4 Lesson 39: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing. GK M4 Lesson 40: Find the number that makes 10 for numbers 1–9, and record each with an addition equation. GK M5 Lesson 10: Build a Rekenrek to 20. GK M6 Lesson 8: Culminating task.
K.AR.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way using verbal explanations, objects, or drawings.	GK M1 Lesson 8: Answer how many questions to 5 in linear configurations (5-group), with 4 in an array configuration. Compare ways to count to five fingers. GK M1 Lesson 9: Within linear and array dot configurations of numbers 3, 4, and 5, find hidden partners. GK M1 Lesson 10: Within circular and scattered dot configurations of numbers 3, 4, and 5, find hidden partners. GK M1 Lesson 11: Model decompositions of 3 with materials, drawings, and expressions. Represent the decomposition as $1 + 2$ and $2 + 1$. GK M1 Lesson 14: Write numerals 1–3. Represent decompositions with materials, drawings, and equations, $3 = 2 + 1$ and $3 = 1 + 2$. GK M1 Lesson 16: Write numerals 1–5 in order. Answer and make drawings of decompositions with totals of 4 and 5 without equations.

North Dakota Mathematics K–12 Standards	Aligned Components of *Eureka Math*
K.AR.OA.3 ***continued***	GK M1 Lesson 37: Culminating task. GK M3 Lesson 7: Compare objects using the same as. GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5 GK M4 Topic B: Decompositions of 6, 7, and 8 into Number Pairs GK M4 Lesson 13: Represent decomposition and composition addition stories to 6 with drawings and equations with no unknown. GK M4 Lesson 14: Represent decomposition and composition addition stories to 7 with drawings and equations with no unknown. GK M4 Lesson 15: Represent decomposition and composition addition stories to 8 with drawings and equations with no unknown. GK M4 Lesson 18: Solve both addends unknown word problems to 8 to find addition patterns in number pairs. GK M4 Lesson 20: Solve take from with result unknown expressions and equations using the minus sign with no unknown. GK M4 Lesson 21: Represent subtraction story problems using objects, drawings, expressions, and equations. GK M4 Lesson 22: Decompose the number 6 using 5-group drawings by breaking off or removing a part, and record each decomposition with a drawing and subtraction equation. GK M4 Lesson 23: Decompose the number 7 using 5-group drawings by hiding a part, and record each decomposition with a drawing and subtraction equation. GK M4 Lesson 24: Decompose the number 8 using 5-group drawings and crossing off a part, and record each decomposition with a drawing and subtraction equation. GK M4 Topic E: Decompositions of 9 and 10 into Number Pairs GK M4 Topic F: Addition with Totals of 9 and 10 GK M4 Topic G: Subtraction from 9 and 10 GK M4 Lesson 41: Culminating task.

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K.AR.OA.4 Solve authentic word problems with addition by putting together or adding to within 10.	GK M4 Lesson 3: Represent composition story situations with drawings using numeric number bonds. GK M4 Lesson 4: Represent decomposition story situations with drawings using numeric number bonds. GK M4 Lesson 6: Represent number bonds with composition and decomposition story situations. GK M4 Lesson 7: Model decompositions of 6 using a story situation, objects, and number bonds. GK M4 Lesson 8: Model decompositions of 7 using a story situation, sets, and number bonds. GK M4 Lesson 9: Model decompositions of 8 using a story situation, arrays, and number bonds. GK M4 Topic C: Addition with Totals of 6, 7, and 8 GK M4 Topic E: Decompositions of 9 and 10 into Number Pairs GK M4 Topic F: Addition with Totals of 9 and 10 GK M4 Lesson 37: Add or subtract 0 to get the same number and relate to word problems wherein the same quantity that joins a set, separates. GK M4 Lesson 39: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing.
K.AR.OA.5 Solve authentic word problems with subtraction by taking apart or taking from within 10.	GK M1 Lesson 28: Act out result unknown story problems without equations. GK M4 Topic D: Subtraction from Numbers to 8 GK M4 Topic G: Subtraction from 9 and 10 GK M4 Lesson 37: Add or subtract 0 to get the same number and relate to word problems wherein the same quantity that joins a set, separates.
K.AR.OA.6 Recognize, duplicate, complete, and extend repeating patterns in a variety of contexts (e.g., shape, color, size, objects, sounds, movements).	*Supplemental material is necessary to address this standard.*

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.

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

North Dakota Mathematics K–12 Standards	Aligned Components of *Eureka Math*
K.GM.G.1 Name shapes and identify them as two-dimensional (squares, circles, triangles, rectangles) regardless of their orientations or overall sizes.	GK M2 Topic A: Two-Dimensional Flat Shapes GK M2 Lesson 9: Identify and sort shapes as two-dimensional or three-dimensional, and recognize two-dimensional and three-dimensional shapes in different orientations and sizes.
K.GM.G.2 Name shapes and identify them as three-dimensional (cubes and spheres) regardless of their orientations or overall sizes.	GK M2 Topic B: Three-Dimensional Solid Shapes GK M2 Lesson 9: Identify and sort shapes as two-dimensional or three-dimensional, and recognize two-dimensional and three-dimensional shapes in different orientations and sizes.
K.GM.G.3 Compare and classify two-dimensional shapes to describe their similarities, differences, and attributes (squares, circles, triangles, rectangles).	GK M2 Topic A: Two-Dimensional Flat Shapes GK M2 Topic B: Three-Dimensional Solid Shapes GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes GK M6 Lesson 1: Describe the systematic construction of flat shapes using ordinal numbers. GK M6 Lesson 2: Build flat shapes with varying side lengths and record with drawings. GK M6 Lesson 5: Compose flat shapes using pattern blocks and drawings.
K.GM.G.4 Compose a geometric shape by combining two or more simple shapes.	GK M6 Topic B: Composing and Decomposing 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.

K.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*
K.GM.M.1 Compare and order two objects with a common measurable attribute.	GK M3 Topic A: Comparison of Length and Height GK M3 Lesson 4: Compare the length of linking cube sticks to a 5-stick. GK M3 Lesson 5: Determine which linking cube stick is longer than or shorter than the other. GK M3 Lesson 6: Compare the length of linking cube sticks to various objects. GK M3 Topic C: Comparison of Weight GK M3 Topic D: Comparison of Volume GK M3 Topic H: Clarification of Measurable Attributes GK M6 Lesson 8: Culminating task.
K.GM.M.2 Tell time related to daily life (today, yesterday, tomorrow, morning, afternoon, night).	*Supplemental material is necessary to address this standard.*

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 probability concepts.

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

North Dakota Mathematics K–12 Standards	Aligned Components of *Eureka Math*
K.DPS.D.1 Sort and classify objects (up to 10) based on attributes and explain the reasoning used.	GK M1 Topic A: Attributes of Two Related Objects GK M1 Topic B: Classify to Make Categories and Count GK M2 Lesson 9: Identify and sort shapes as two-dimensional or three-dimensional, and recognize two-dimensional and three-dimensional shapes in different orientations and sizes.