Grade 4 | Nebraska's College and Career Ready Standards for Mathematics Correlation to *Eureka Math²®*

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 Math²®*, 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 Math²* 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 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 Math²* 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.

Nebraska Mathematical Processes	Aligned Components of *Eureka Math²*
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MP.2 Reason quantitatively and abstractly and consider the reasoning of others.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MP.3 Create and use representations to organize, record, and communicate mathematical ideas.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MP.4 Analyze mathematical relationships to connect mathematical ideas.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MP.5 Explain and justify mathematical ideas using precise mathematical language in written or oral communication.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.

Number: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.N.1 Numeric Relationships: Students will demonstrate and represent multi-digit numbers using relationships with the base-ten number system.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.1.a Read, write, and demonstrate multiple equivalent representations for whole numbers up to $1{,}000{,}000$ and decimals to the hundredths using visual representations, standard form, and expanded form.	4 M1 Lesson 5: Organize, count, and represent a collection of objects. 4 M1 Lesson 7: Write numbers to $1{,}000{,}000$ in unit form and expanded form by using place value structure. 4 M1 Lesson 8: Write numbers to $1{,}000{,}000$ in standard form and word form. 4 M1 Lesson 10: Name numbers by using place value understanding. 4 M1 Lesson 11: Find 1, 10, and 100 thousand more than and less than a given number. 4 M5 Topic A: Exploration of Tenths 4 M5 Topic B: Tenths and Hundredths *Supplemental material is necessary to address the expanded form of decimals.*
4.N.1.b Represent and justify comparisons of whole numbers up to $1{,}000{,}000$ and decimals through the hundredths place using number lines and reasoning strategies.	4 M1 Lesson 9: Compare numbers within $1{,}000{,}000$ by using $>$, $=$, and $<$. 4 M5 Topic C: Comparison of Decimal Numbers
4.N.1.c Recognize a digit in one place represents ten times what it represents in the place to its right.	4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.1.d Use decimal notation for fractions with denominators of 10 or 100 (e.g., $\frac{43}{100} = 0.43$).	4 M5 Topic A: Exploration of Tenths 4 M5 Topic B: Tenths and Hundredths

Number: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.N.2 Fractions and Decimals: Students will extend understanding of fractions by equivalence and ordering and will develop an understanding of decimals.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.2.a Explain and demonstrate how a mixed number is equivalent to a fraction greater than one and how a fraction greater than one is equivalent to a mixed number using visual fraction models and reasoning strategies.	4 M4 Lesson 5: Rename fractions greater than 1 as mixed numbers. 4 M4 Lesson 6: Rename mixed numbers as fractions greater than 1.
4.N.2.b Explain and demonstrate how equivalent fractions are generated by multiplying by a fraction equivalent to 1 using visual fraction models and the Identity Property of Multiplication.	4 M4 Lesson 8: Generate equivalent fractions with smaller units for unit fractions. 4 M4 Lesson 9: Generate equivalent fractions with smaller units for non-unit fractions. 4 M4 Lesson 10: Generate equivalent fractions with larger units. 4 M4 Lesson 11: Represent equivalent fractions by using tape diagrams, number lines, and multiplication or division. 4 M4 Lesson 12: Generate equivalent fractions for fractions greater than 1 and generate equivalent mixed numbers. *Supplemental material is necessary to address generating equivalent fractions by multiplying by a fraction equivalent to 1.*

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.2.c Compare and order fractions having unlike numerators or denominators using number lines, benchmarks, reasoning strategies, and/or equivalence.	4 M4 Topic C: Compare Fractions

Number: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.N.3 Operations with Fractions: Students will understand and demonstrate fractional computation.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.3.a Decompose a fraction into a sum of fractions with the same denominator in more than one way and record each decomposition with an equation and a visual representation.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions. 4 M4 Topic D: Add and Subtract Fractions
4.N.3.b Explain the meaning of addition and subtraction of fractions with like denominators using visual fraction models, properties of operations, and reasoning strategies.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions. 4 M4 Topic D: Add and Subtract Fractions

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.3.c Add and subtract fractions and mixed numbers with like denominators.	4 M4 Lesson 23: Add a fraction to a mixed number. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 25: Subtract a fraction from a mixed number, part 1. 4 M4 Lesson 26: Subtract a fraction from a mixed number, part 2. 4 M4 Lesson 27: Subtract a mixed number from a mixed number.
4.N.3.d Solve authentic problems involving addition and subtraction of fractions and mixed numbers with like denominators.	4 M4 Lesson 18: Estimate sums and differences of fractions by using benchmarks. 4 M4 Lesson 20: Subtract a fraction from a whole number. 4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 27: Subtract a mixed number from a mixed number. 4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations.
4.N.3.e Multiply a fraction by a whole number using visual fraction models and properties of operations.	4 M4 Topic F: Repeated Addition of Fractions as Multiplication

Number: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.N.4 Factors and Multiples: Students will find factors and multiples and classify numbers as prime or composite.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.N.4.a Determine whether a given whole number up to 100 is a multiple of a given one-digit number.	4 M2 Lesson 23: Determine whether a whole number is a multiple of another number. 4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors. 4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.
4.N.4.b Determine factors of any whole number up to 100 and classify a number up to 100 as prime or composite.	4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite. 4 M2 Lesson 22: Use division and the associative property of multiplication to find factors.

Algebra: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.A.1 Operations and Algebraic Thinking: Students will extend understanding of multiplication and division and apply operational properties to solve problems involving variables.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.A.1.a Add and subtract multi-digit numbers using an algorithm.	4 M1 Topic D: Multi-Digit Whole Number Addition and Subtraction

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.A.1.b Multiply up to a four-digit whole number by a one-digit whole number and multiply a two-digit whole number by a two-digit whole number, using strategies based on place value, properties of operations, and algorithms.	4 M2 Lesson 1: Multiply multiples of 10 by one-digit numbers by using the associative property of multiplication. 4 M2 Topic B: Multiplication of Tens and Ones by One-Digit Numbers 4 M3 Lesson 2: Multiply by multiples of 100 and 1,000. 4 M3 Lesson 3: Multiply a two-digit multiple of 10 by a two-digit multiple of 10. 4 M3 Topic C: Multiplication of up to Four-Digit Numbers by One-Digit Numbers 4 M3 Topic D: Multiplication of Two-Digit Numbers by Two-Digit Numbers
4.A.1.c Divide up to a four-digit whole number by a one-digit divisor with and without a remainder using strategies based on place value.	4 M2 Lesson 2: Divide two- and three-digit multiples of 10 by one-digit numbers. 4 M2 Topic C: Division of Tens and Ones by One-Digit Numbers 4 M3 Lesson 1: Divide multiples of 100 and 1,000. 4 M3 Topic B: Division of Thousands, Hundreds, Tens, and Ones 4 M3 Lesson 21: Find whole-number quotients and remainders. 4 M3 Lesson 22: Represent, estimate, and solve division word problems.
4.A.1.d Determine the reasonableness of whole number products and quotients using estimations and number sense.	4 M2 Lesson 13: Divide three-digit numbers by one-digit numbers by using an area model. 4 M3 Lesson 22: Use division and the associative property of multiplication to find factors. 4 M3 Lesson 24: Recognize that a number is a multiple of each of its factors. *Supplemental material is necessary to address determining the reasonableness of products.*

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.A.1.e Create a simple algebraic expression or equation using a variable for an unknown number to represent an authentic mathematical situation (e.g., $3 + n = 15$, $81 \div n = 9$).	4 M1 Lesson 15: Apply estimation to real-world situations by using rounding. 4 M1 Lesson 16: Add by using the standard algorithm. 4 M1 Lesson 17: Solve multi-step addition word problems by using the standard algorithm. 4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction. 4 M1 Lesson 22: Solve multi-step word problems by using addition and subtraction. 4 M3 Topic F: Remainders, Estimating, and Problem Solving
4.A.1.f Solve one- and two-step authentic problems using the four operations including interpreting remainders and the use of a letter to represent the unknown quantity.	4 M1 Lesson 15: Apply estimation to real-world situations by using rounding. 4 M1 Lesson 16: Add by using the standard algorithm. 4 M1 Lesson 17: Solve multi-step addition word problems by using the standard algorithm. 4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction. 4 M1 Lesson 22: Solve multi-step word problems by using addition and subtraction. 4 M3 Topic F: Remainders, Estimating, and Problem Solving

Geometry: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.G.1 Shapes and Their Attributes: Students will draw and identify lines and angles and classify shapes by properties of their lines and angles.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.G.1.a Identify, create, and describe points, lines, line segments, rays, angles, parallel lines, perpendicular lines, and intersecting lines.	4 M6 Lesson 1: Identify and draw points, lines, line segments, rays, and angles. 4 M6 Lesson 4: Identify, define, and draw perpendicular lines. 4 M6 Lesson 5: Identify, define, and draw parallel lines. 4 M6 Lesson 6: Relate geometric figures to a real-world context.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.G.1.b Justify the classification of angles as acute, obtuse, or right.	4 M6 Lesson 2: Identify right, acute, obtuse, and straight angles. 4 M6 Lesson 3: Draw right, acute, obtuse, and straight angles. 4 M6 Lesson 6: Relate geometric figures to a real-world context. 4 M6 Lesson 10: Use $180°$ protractors to measure angles. 4 M6 Lesson 11: Estimate and measure angles with a $180°$ protractor. 4 M6 Lesson 12: Use a protractor to draw angles up to $180°$. 4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both.
4.G.1.c Justify the classification of two-dimensional shapes based on the presence or absence of parallel and perpendicular lines or the presence or absence of specific angles.	4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both. 4 M6 Lesson 19: Construct and classify triangles based on given attributes. 4 M6 Lesson 20: Sort polygons based on a given rule.
4.G.1.d Recognize, draw, and justify lines of symmetry in two-dimensional shapes.	4 M6 Lesson 17: Recognize, identify, and draw lines of symmetry.

Geometry: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.G.2 Measurement: Students will generate simple conversions from a larger unit to a smaller unit to solve authentic problems and measure angles.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.G.2.a Identify and use the appropriate tools, operations, and units of measurement, both customary and metric, to solve authentic problems involving time, length, weight, mass, and capacity.	4 M2 Lesson 17: Express measurements of length in terms of smaller units. 4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons. 4 M3 Topic E: Problem Solving with Measurement 4 M4 Lesson 18: Estimate sums and differences of fractions by using benchmarks. 4 M4 Lesson 20: Subtract a fraction from a whole number. 4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 27: Subtract a mixed number from a mixed number. 4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations. 4 M4 Lesson 33: Solve word problems involving multiplication of a fraction by a whole number. 4 M5 Lesson 14: Solve word problems with tenths and hundredths.
4.G.2.b Determine the reasonableness of measurements involving time, length, weight, mass, capacity, and angles.	*Supplemental material is necessary to address this standard.*

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.G.2.c Generate simple conversions from a larger unit to a smaller unit within the customary and metric systems of measurement.	4 M1 Topic E: Metric Measurement Conversion Tables 4 M2 Lesson 17: Express measurements of length in terms of smaller units. 4 M3 Topic E: Problem Solving with Measurement
4.G.2.d Measure angles in whole number degrees using a protractor and relate benchmark angle measurements to their rotation through a circle (e.g., $180^o = \frac{1}{2}$ of a circle).	4 M6 Topic B: Angle Measurement
4.G.2.e Recognize angle measures as additive and solve problems involving addition and subtraction to find unknown angles on a diagram.	4 M6 Topic C: Determine Unknown Angle Measures

Geometry: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.G.3 Area and Perimeter: Students will apply perimeter and area formulas for rectangles.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.G.3.a Apply perimeter and area formulas for rectangles to solve authentic problems.	4 M2 Lesson 3: Investigate and use a formula for the area of a rectangle. 4 M2 Lesson 7: Multiply by using an area model and the distributive property. 4 M2 Lesson 18: Investigate and use formulas for the perimeter of a rectangle. 4 M2 Lesson 19: Apply area and perimeter formulas to solve problems. 4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons.

Data: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.D.1.a Generate and represent data using line plots where the horizontal scale is marked off in appropriate units—whole numbers, halves, fourths, or eighths.	4 M4 Lesson 30: Represent data on a line plot.

Data: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
4.D.2.a Solve authentic problems and analyze data involving addition or subtraction of fractions presented in line plots.	4 M4 Lesson 29: Solve problems by using data from a line plot.