Grade 5 | 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.

5.N.1 Numeric Relationships: Students will understand the place value system.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.1.a Read, write, and demonstrate multiple equivalent representations for multi-digit whole numbers and decimals through the thousandths place using 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 9: Compare numbers within 1,000,000 by using >, =, and <. 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. 5 M4 Lesson 1: Model and relate decimal place value units to thousandths. 5 M4 Lesson 2: Represent thousandths as a place value unit. 5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms. 5 M4 Lesson 6: Compare decimal numbers to the thousandths place.
5.N.1.b Recognize a digit in one place represents $\frac{1}{10}$ of what it represents in the place to its left.	5 M1 Lesson 1: Relate adjacent place value units by using place value understanding. 5 M1 Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients. 5 M4 Lesson 1: Model and relate decimal place value units to thousandths. 5 M4 Lesson 2: Represent thousandths as a place value unit. 5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms. 5 M4 Lesson 4: Relate the values of digits in a decimal number by using place value understanding.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.1.c Use whole number exponents to denote powers of 10.	5 M1 Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients. 5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10. 5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples. 5 M4 Lesson 5: Multiply and divide decimal numbers by powers of 10.

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

5.N.2 Fractions and Decimals: Students will extend understanding of fraction and decimal equivalence and ordering.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.2.a Generate equivalent forms of commonly used fractions and decimals (e.g., halves, fourths, fifths, tenths).	5 M4 Lesson 13: Solve word problems involving addition and subtraction of decimal numbers and fractions.
5.N.2.b Represent and justify comparisons of whole numbers, fractions, mixed numbers, and decimals through the thousandths place using number lines, reasoning strategies, and/or equivalence.	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 9: Compare numbers within 1,000,000 by using $>$, $=$, and $<$. 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 M4 Topic C: Compare Fractions 5 M4 Lesson 6: Compare decimal numbers to the thousandths place.

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

5.N.3 Operations with Fractions and Decimals: Students will apply and extend previous understandings of whole number operations to add, subtract, multiply and divide fractions and decimals.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.3.a Interpret a fraction as division of the numerator by the denominator.	5 M2 Topic A: Fractions and Division
5.N.3.b Multiply a whole number by a fraction or a fraction by a fraction, including mixed numbers, using visual fraction models and properties of operations.	5 M3 Topic A: Multiplication of a Whole Number by a Fraction 5 M3 Topic B: Multiplication of Fractions 5 M5 Lesson 12: Multiply mixed numbers.
5.N.3.c Divide a unit fraction by a whole number and a whole number by a unit fraction using visual fraction models and properties of operations.	5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group. 5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number. 5 M3 Lesson 15: Divide by whole numbers and unit fractions. 5 M3 Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers. 5 M3 Lesson 19: Create and solve one-step word problems involving fractions.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.3.d Solve authentic problems involving addition, subtraction, and multiplication of fractions and mixed numbers with like and unlike denominators.	5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers 5 M2 Lesson 17: Solve problems by equally redistributing a total amount. 5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division. 5 M3 Lesson 21: Solve multi-step word problems involving fractions. 5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths. 5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.
5.N.3.e Add and subtract fractions and mixed numbers with unlike denominators without simplifying.	5 M2 Topic B: Addition and Subtraction of Fractions by Making Like Units 5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers
5.N.3.f Solve authentic problems involving division of unit fractions by whole numbers and division of whole numbers by unit fractions.	5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group. 5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number. 5 M3 Lesson 15: Divide by whole numbers and unit fractions. 5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division. 5 M3 Lesson 19: Create and solve one-step word problems involving fractions. 5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses. 5 M3 Lesson 21: Solve multi-step word problems involving fractions.

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5.N.3.g Add and subtract decimals to hundredths using strategies based on place value, properties of operations, and/or algorithms.	5 M4 Topic B: Addition and Subtraction of Decimal Numbers

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

5.A.1 Operations and Algebraic Thinking: Students will extend understanding of division and apply operational properties to solve problems involving order of operations.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.A.1.a Multiply multi-digit whole numbers using an algorithm.	5 M1 Topic B: Multiplication of Whole Numbers
5.A.1.b Divide four-digit whole numbers by a two-digit divisor, with and without remainders, using strategies based on place value.	5 M1 Topic C: Division of Whole Numbers
5.A.1.c Justify the reasonableness of computations involving whole numbers, fractions, and decimals.	5 M1 Topic B: Multiplication of Whole Numbers 5 M1 Topic C: Division of Whole Numbers 5 M2 Lesson 3: Represent fractions as division by using models. 5 M2 Lesson 4: Solve word problems involving division and fractions.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.A.1.c *continued*	5 M2 Topic B: Addition and Subtraction of Fractions by Making Like Units
	5 M2 Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.
	5 M2 Lesson 13: Subtract mixed numbers from mixed numbers with related units.
	5 M3 Topic A: Multiplication of a Whole Number by a Fraction
	5 M3 Topic B: Multiplication of Fractions
	5 M3 Topic C: Division with a Unit Fraction and a Whole Number
	5 M3 Lesson 19: Create and solve one-step word problems involving fractions.
	5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.
	5 M3 Lesson 21: Solve multi-step word problems involving fractions.
	5 M4 Topic B: Addition and Subtraction of Decimal Numbers
	5 M5 Lesson 12: Multiply mixed numbers.
	5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.
5.A.1.d Simplify authentic numerical or algebraic expressions using order of operations (excluding exponents).	*Supplemental material is necessary to address this standard.*

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

5.G.1 Shapes and Their Attributes: Students will classify two-dimensional figures into categories based on their properties.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.1.a Identify and describe faces, edges, and vertices of rectangular prisms.	5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms.
5.G.1.b Recognize volume as an attribute of solid figures that is measured in cubic units.	5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms. 5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting. 5 M5 Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers. 5 M5 Lesson 20: Interpret volume as filling. 5 M5 Lesson 21: Relate volumes of solids and liquid volume.
5.G.1.c Justify the classification of two-dimensional figures in a hierarchy based on their properties.	5 M5 Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures 5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.

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

5.G.2 Coordinate Geometry: Graph points on the coordinate plane to solve authentic problems.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.2.a Identify the origin, x-axis, and y-axis of the coordinate plane.	5 M6 Lesson 1: Construct a coordinate system on a line. 5 M6 Lesson 2: Construct a coordinate system in a plane. 5 M6 Lesson 3: Identify and plot points by using ordered pairs.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.2.b Graph and name points in the first quadrant of the coordinate plane using ordered pairs of whole numbers.	5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane. 5 M6 Lesson 5: Identify properties of horizontal and vertical lines. 5 M6 Lesson 6: Use properties of horizontal and vertical lines to solve problems. 5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Topic C: Solve Mathematical Problems in the Coordinate Plane 5 M6 Lesson 16: Interpret graphs that represent real-world situations. 5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships. 5 M6 Lesson 18: Interpret line graphs. 5 M6 Lesson 20: Reason about patterns in real-world situations.
5.G.2.c Form ordered pairs from authentic problems involving rules or patterns, graph the ordered pairs in the first quadrant on a coordinate plane, and interpret coordinate values in the context of the situation.	5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane. 5 M6 Lesson 5: Identify properties of horizontal and vertical lines. 5 M6 Lesson 6: Use properties of horizontal and vertical lines to solve problems. 5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Topic C: Solve Mathematical Problems in the Coordinate Plane 5 M6 Lesson 16: Interpret graphs that represent real-world situations. 5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships. 5 M6 Lesson 18: Interpret line graphs. 5 M6 Lesson 20: Reason about patterns in real-world situations.

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

5.G.3 Measurement: Generate conversions within the customary and metric systems of measurement to solve authentic problems.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.3.a Generate conversions in authentic mathematical situations from larger units to smaller units and smaller units to larger units, within the customary and metric systems of measurement.	5 M1 Lesson 5: Convert measurements and describe relationships between metric units. 5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion. 5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units. 5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units. 5 M4 Lesson 26: Solve a real-world problem involving metric measurements. 5 M4 Lesson 27: Convert metric measurements involving decimals. 5 M4 Lesson 28: Convert customary measurements involving decimals.

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

5.G.4 Area and Volume: Students will extend area problems for rectangles to include fractions and build meaning for measuring volume.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.4.a Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the fraction side lengths and show that the area is the same as would be found by multiplying the side lengths.	5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square. 5 M5 Lesson 9: Organize, count, and represent a collection of square tiles. 5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.4.b Multiply fractional side lengths to find areas of rectangles and represent fraction products as rectangular areas.	5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication. 5 M5 Lesson 12: Multiply mixed numbers. 5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths. 5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths. 5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.
5.G.4.c Use concrete models to measure the volume of rectangular prisms by counting cubic units.	5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting. 5 M5 Lesson 18: Find the volume of right rectangular prisms by packing with improvised units. 5 M5 Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers. 5 M5 Lesson 21: Relate volumes of solids and liquid volume.
5.G.4.d Find the volume of a rectangular prism with whole-number side lengths by modeling with unit cubes and show that the volume can be additive and is the same as would be found by multiplying the area of the base times height.	5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base. 5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths. 5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.

Nebraska's College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.4.e Solve authentic problems by applying the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of rectangular prisms with whole number edge lengths.	5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base. 5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths. 5 M5 Lesson 25: Find the volumes of solid figures composed of right rectangular prisms. 5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume. 5 M5 Lesson 27: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 1. 5 M5 Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.

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

5.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*
5.D.2.a Represent, analyze, and solve authentic problems using information presented in one or more tables or line plots including whole numbers and fractions.	5 M2 Topic D: Problem Solving and Line Plots with Fractional Measurements