
Grade 7–8 | Nebraska’s College and Career Ready Standards for Mathematics (2022) Correlation to *Eureka Math*²® (2027)

*Eureka Math*² is a research-proven math curriculum that empowers teachers to center instructional techniques on student success. Teachers can foster more “aha!” learning moments by providing the support needed for all learners to build a more confident math mindset.

This *Eureka Math*² edition builds on a strong foundation of effective instruction. It provides teachers with guidance on delivering rigorous instruction that honors student choice and encourages confident problem-solving.

*Eureka Math*² carefully sequences mathematical content to maximize vertical alignment from kindergarten through high school. This kind of sequencing has proven to be essential in students’ mastery of math.

Teachability

*Eureka Math*² 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 into the teacher materials.

Accessibility

*Eureka Math*² incorporates Universal Design for Learning (UDL) principles so all learners can access the mathematics and take on challenging math concepts. UDL, Differentiation, and Multilingual Learner supports are built into the instructional design and are clearly identified in the *Teach* book.

The curriculum also carries a focus on readability. By eliminating unnecessary words and using clear sentences, the *Eureka Math*² 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.

Math Confidence

*Eureka Math*² fosters a classroom culture of learning by encouraging student-led discourse and cognitive engagement that results in confident learners. By leveraging consistent models, routines, and progressions, teachers can remove barriers and allow all students an avenue to success. Within the digital platform, each grade includes wordless videos and digital interactives that spark students’ curiosity and help them make conceptual connections. Using the *Learn* books, students wonder, explore, and make sense of mathematics, which helps them develop a strong, positive mathematical identity.

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

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

7.N.2 Operations: Students will compute with rational numbers accurately.

**Nebraska’s College and Career Ready
Standards for Mathematics**

Aligned Components of *Eureka Math*²

<p>7.N.2.a</p> <p>Add, subtract, multiply, and divide rational numbers (e.g., positive and negative fractions, decimals, and integers).</p>	<p>7–8 M1 Lesson 1: Adding Integers and Rational Numbers</p> <p>7–8 M1 Lesson 2: KAKOOMA[®] with Rational Numbers</p> <p>7–8 M1 Lesson 3: Finding Distances to Find Differences</p> <p>7–8 M1 Lesson 4: Subtracting Integers</p> <p>7–8 M1 Lesson 5: Subtracting Rational Numbers</p> <p>7–8 M1 Lesson 6: Multiplying Integers and Rational Numbers</p> <p>7–8 M1 Lesson 7: Exponential Expressions and Relating Multiplication to Division</p> <p>7–8 M1 Lesson 8: Dividing Integers and Rational Numbers</p>
<p>7.N.2.b</p> <p>Apply properties of operations (commutative, associative, distributive, identity, inverse, zero) as strategies for problem solving with rational numbers.</p>	<p>7–8 M1 Lesson 1: Adding Integers and Rational Numbers</p> <p>7–8 M1 Lesson 2: KAKOOMA[®] with Rational Numbers</p> <p>7–8 M1 Lesson 3: Finding Distances to Find Differences</p> <p>7–8 M1 Lesson 4: Subtracting Integers</p> <p>7–8 M1 Lesson 5: Subtracting Rational Numbers</p> <p>7–8 M1 Lesson 6: Multiplying Integers and Rational Numbers</p> <p>7–8 M1 Lesson 7: Exponential Expressions and Relating Multiplication to Division</p> <p>7–8 M1 Lesson 8: Dividing Integers and Rational Numbers</p> <p>7–8 M1 Lesson 9: Decimal Expansions of Rational Numbers</p>

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

8.N.1 Numeric Relationships: Students will demonstrate, represent, and show relationships among real numbers within the base-ten number system.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.N.1.a</p> <p>Determine subsets of numbers as natural, whole, integer, rational, irrational, or real based on the definitions of these sets of numbers.</p>	<p>7–8 M1 Lesson 22: Rational and Irrational Numbers</p> <p>7–8 M1 Lesson 23: Revisiting Equations with Squares and Cubes</p> <p><i>Supplemental material is necessary to address all the subsets of real numbers.</i></p>
<p>8.N.1.b</p> <p>Represent numbers with positive and negative exponents and in scientific notation.</p>	<p>7–8 M1 Lesson 10: Large and Small Positive Numbers</p> <p>7–8 M1 Lesson 14: Writing Very Large and Very Small Numbers in Scientific Notation</p> <p>7–8 M1 Lesson 15: Operations with Numbers Written in Scientific Notation</p> <p>7–8 M1 Lesson 16: Applications with Numbers Written in Scientific Notation</p> <p>7–8 M1 Lesson 17: Get to the Point</p>
<p>8.N.1.c</p> <p>Describe the difference between a rational and irrational number.</p>	<p>7–8 M1 Lesson 22: Rational and Irrational Numbers</p> <p>7–8 M1 Lesson 23: Revisiting Equations with Squares and Cubes</p>
<p>8.N.1.d</p> <p>Approximate, compare, and order real numbers, both rational and irrational, and locate them on the number line.</p>	<p>7–8 M1 Lesson 20: Using the Pythagorean Theorem</p> <p>7–8 M1 Lesson 21: Approximating Values of Roots</p> <p>7–8 M1 Lesson 22: Rational and Irrational Numbers</p>

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

8.N.2 Operations: Students will compute with exponents and roots.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.N.2.a</p> <p>Evaluate the square roots of perfect squares less than or equal to 400 and cube roots of perfect cubes less than or equal to 125.</p>	<p>7–8 M1 Lesson 18: Solving Equations with Squares and Cubes</p> <p>7–8 M1 Lesson 19: The Pythagorean Theorem</p> <p>7–8 M1 Lesson 21: Approximating Values of Roots</p> <p>7–8 M1 Lesson 23: Revisiting Equations with Squares and Cubes</p>
<p>8.N.2.b</p> <p>Simplify numerical expressions involving integer exponents, square roots, and cube roots (e.g., 4^{-2} is the same as $\frac{1}{16}$).</p>	<p>7–8 M1 Lesson 11: Products of Exponential Expressions with Positive Whole-Number Exponents</p> <p>7–8 M1 Lesson 12: More Properties of Exponents</p> <p>7–8 M1 Lesson 13: Making Sense of Integer Exponents</p> <p><i>Supplemental material is necessary to address simplifying numerical expressions involving square roots and cube roots.</i></p>
<p>8.N.2.c</p> <p>Evaluate numerical expressions involving absolute value.</p>	<p>6 M3 Lesson 7: Absolute Value</p>
<p>8.N.2.d</p> <p>Multiply and divide numbers using scientific notation.</p>	<p>7–8 M1 Lesson 15: Operations with Numbers Written in Scientific Notation</p> <p>7–8 M1 Lesson 16: Applications with Numbers Written in Scientific Notation</p> <p>7–8 M1 Lesson 17: Get to the Point</p>

Ratios and Proportions: Students will understand ratio concepts and use ratio reasoning to solve problems.

7.R.1 Proportional Relationships: Students will understand the concept of proportions, use language to describe the relationship between two quantities, and use proportions to solve authentic situations.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.R.1.a</p> <p>Decide whether two quantities are in a proportional relationship (e.g., by testing for equivalent ratios in a table).</p>	<p>7–8 M2 Lesson 12: An Experiment with Ratios and Rates</p> <p>7–8 M2 Lesson 13: Exploring Tables of Proportional Relationships</p> <p>7–8 M2 Lesson 14: Exploring Graphs of Proportional Relationships</p> <p>7–8 M2 Lesson 19: Proportional Reasoning and Percents</p>
<p>7.R.1.b</p> <p>Represent and solve authentic problems with proportions.</p>	<p>7–8 M2 Lesson 19: Proportional Reasoning and Percents</p> <p>7–8 M2 Lesson 20: Commissions, Fees, and Taxes</p> <p>7–8 M2 Lesson 21: Discount, Markup, Sales Tax, and Tip</p>
<p>7.R.1.c</p> <p>Use proportional relationships to solve authentic percent problems (e.g., percent change, sales tax, mark-up, discount, tip).</p>	<p>7–8 M2 Lesson 19: Proportional Reasoning and Percents</p> <p>7–8 M2 Lesson 20: Commissions, Fees, and Taxes</p> <p>7–8 M2 Lesson 21: Discount, Markup, Sales Tax, and Tip</p> <p>7–8 M2 Lesson 22: Percent Increase and Percent Decrease</p> <p>7–8 M2 Lesson 23: What Is the Best Deal?</p> <p>7–8 M2 Lesson 24: Simple Interest</p> <p>7–8 M2 Lesson 25: Applying Percent Error</p>
<p>7.R.1.d</p> <p>Solve authentic problems involving scale drawings.</p>	<p>7–8 M3 Lesson 18: Scale Drawings</p> <p>7–8 M3 Lesson 19: Finding Actual Distances from a Scale Drawing</p> <p>7–8 M3 Lesson 20: Scale and Scale Factor</p> <p>7–8 M3 Lesson 21: Modeling with Scale Drawings</p> <p>7–8 M3 Lesson 22: Dilations</p>

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

7.A.1 Algebraic Processes: Students will apply the operational properties when evaluating expressions, and solving equations and inequalities.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.A.1.a</p> <p>Use factoring and properties of operations to create equivalent algebraic expressions (e.g., $2x + 6 = 2(x + 3)$).</p>	<p>7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations</p> <p>7–8 M2 Lesson 21: Discount, Markup, Sales Tax, and Tip</p> <p>7–8 M2 Lesson 22: Percent Increase and Percent Decrease</p>
<p>7.A.1.b</p> <p>Given the value of the variable(s), evaluate algebraic expressions, which may include absolute value.</p>	<p>6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division</p> <p>6 M4 Lesson 11: Modeling Real-World Situations with Expressions</p> <p>6 M4 Lesson 12: Applying Properties to Multiplication and Division Expressions</p> <p>6 M4 Lesson 17: Equations and Solutions</p> <p>6 M5 Lesson 1: The Area of a Parallelogram</p> <p>6 M5 Lesson 3: The Area of a Triangle</p> <p>6 M5 Lesson 12: From Nets to Surface Area</p> <p>6 M5 Lesson 13: Surface Area in Real-World Situations</p> <p>6 M5 Lesson 14: Designing a Box</p> <p>6 M5 Lesson 16: Applying Volume Formulas</p> <p><i>Supplemental material is necessary to fully address evaluating algebraic expressions with absolute value.</i></p>

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.A.1.c</p> <p>Solve one- and two-step equations involving rational numbers.</p>	<p>6 M4 Lesson 17: Equations and Solutions</p> <p>6 M4 Lesson 19: Solving Equations with Addition and Subtraction</p> <p>6 M4 Lesson 20: Solving Equations with Multiplication and Division</p> <p>6 M4 Lesson 21: Solving Problems with Equations</p> <p>7–8 M2 Lesson 1: Finding Unknown Angle Measures</p> <p>7–8 M2 Lesson 3: Solving Equations</p> <p>7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities</p>
<p>7.A.1.d</p> <p>Solve equations using the distributive property and combining like terms.</p>	<p>7–8 M2 Lesson 1: Finding Unknown Angle Measures</p> <p>7–8 M2 Lesson 3: Solving Equations</p> <p>7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities</p>
<p>7.A.1.e</p> <p>Solve one- and two-step inequalities involving integers and represent solutions on a number line.</p>	<p>6 M4 Lesson 18: Inequalities and Solutions</p> <p>7–8 M2 Lesson 4: Using Equations to Solve Inequalities</p> <p>7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities</p>

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

7.A.2 Applications: Students will solve authentic problems with algebraic expressions, equations, and inequalities.

**Nebraska’s College and Career Ready
Standards for Mathematics**

Aligned Components of *Eureka Math*²

<p>7.A.2.a</p> <p>Write one- and two-step equations involving rational numbers from words, tables, and authentic situations.</p>	<p>6 M4 Lesson 21: Solving Problems with Equations</p> <p>7–8 M2 Lesson 1: Finding Unknown Angle Measures</p> <p>7–8 M2 Lesson 3: Solving Equations</p> <p>7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities</p> <p>7–8 M2 Lesson 15: Relating Representations of Proportional Relationships</p> <p>7–8 M2 Lesson 16: Applying Proportional Reasoning</p> <p>7–8 M2 Lesson 17: Using Proportional Reasoning to Solve Multi-Step Problems</p> <p>7–8 M2 Lesson 18: Handstand Sprint</p> <p><i>Supplemental material is necessary to address writing two-step equations from tables.</i></p>
<p>7.A.2.b</p> <p>Write one- and two-step inequalities to represent authentic situations involving integers.</p>	<p>6 M4 Lesson 18: Inequalities and Solutions</p> <p>7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities</p>

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

8.A.1 Algebraic Processes: Students will apply the operational properties when evaluating expressions and solving equations.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.A.1.a</p> <p>Describe single variable equations as having one solution, no solution, or infinitely many solutions.</p>	<p>7–8 M2 Lesson 8: Solving Equations with Rational Coefficients</p> <p>7–8 M2 Lesson 9: Linear Equations with More Than One Solution</p> <p>7–8 M2 Lesson 10: Another Possible Number of Solutions</p>
<p>8.A.1.b</p> <p>Solve multi-step equations involving rational numbers with the same variable appearing on both sides of the equation.</p>	<p>7–8 M2 Lesson 7: Solving Multi-Step Equations</p> <p>7–8 M2 Lesson 8: Solving Equations with Rational Coefficients</p> <p>7–8 M2 Lesson 9: Linear Equations with More Than One Solution</p> <p>7–8 M2 Lesson 10: Another Possible Number of Solutions</p> <p>7–8 M2 Lesson 11: Using Linear Equations to Solve Real-World Problems</p>
<p>8.A.1.c</p> <p>Solve equations of the form $x^2 = k$ ($k \leq 400$) and $x^3 = k$ ($k \leq 125$), where k is a positive rational number, using square root and cube root symbols.</p>	<p>7–8 M1 Lesson 18: Solving Equations with Squares and Cubes</p> <p>7–8 M1 Lesson 19: The Pythagorean Theorem</p> <p>7–8 M1 Lesson 20: Using the Pythagorean Theorem</p> <p>7–8 M1 Lesson 21: Approximating Values of Roots</p> <p>7–8 M1 Lesson 23: Revisiting Equations with Squares and Cubes</p>

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

8.A.2 Applications: Students will solve authentic problems involving multi-step equations.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.A.2.a</p> <p>Write multi-step single variable equations from words, tables, and authentic situations.</p>	<p>7–8 M2 Lesson 7: Solving Multi-Step Equations</p> <p>7–8 M2 Lesson 8: Solving Equations with Rational Coefficients</p> <p>7–8 M2 Lesson 9: Linear Equations with More Than One Solution</p> <p>7–8 M2 Lesson 10: Another Possible Number of Solutions</p> <p>7–8 M2 Lesson 11: Using Linear Equations to Solve Real-World Problems</p> <p><i>Supplemental material is necessary to address writing multi-step single variable equations from tables.</i></p>
<p>8.A.2.b</p> <p>Determine and describe the rate of change for given situations through the use of tables and graphs.</p>	<p>7–8 M2 Lesson 13: Exploring Tables of Proportional Relationships</p> <p>7–8 M2 Lesson 14: Exploring Graphs of Proportional Relationships</p> <p>7–8 M2 Lesson 15: Relating Representations of Proportional Relationships</p> <p>7–8 M2 Lesson 16: Applying Proportional Reasoning</p> <p>A1 M5 Lesson 15: Calculating Interest</p> <p>A1 M5 Lesson 18: Modeling Populations</p> <p>A1 M5 Lesson 21: World Population Prediction</p> <p>A1 M5 Lesson 22: A Closer Look at Populations</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p>

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.A.2.c</p> <p>Graph proportional relationships and interpret the rate of change.</p>	<p>7–8 M2 Lesson 14: Exploring Graphs of Proportional Relationships</p> <p>7–8 M2 Lesson 15: Relating Representations of Proportional Relationships</p> <p>A1 M5 Lesson 15: Calculating Interest</p> <p>A1 M5 Lesson 18: Modeling Populations</p> <p>A1 M5 Lesson 21: World Population Prediction</p> <p>A1 M5 Lesson 22: A Closer Look at Populations</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p>
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Geometry: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.G.1 Attributes: Students will identify angle relationships and apply properties to determine angle measures.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.G.1.a</p> <p>Apply properties of adjacent, complementary, supplementary, linear pair, and vertical angles to find missing angle measures.</p>	<p>7–8 M2 Lesson 1: Finding Unknown Angle Measures</p> <p>7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations</p> <p>7–8 M2 Lesson 7: Solving Multi-Step Equations</p>
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Geometry: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.G.2 Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.

**Nebraska’s College and Career Ready
Standards for Mathematics**

Aligned Components of *Eureka Math*²

<p>7.G.2.a</p> <p>Draw polygons in the coordinate plane given coordinates for the vertices.</p>	<p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p> <p>6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane</p>
<p>7.G.2.b</p> <p>Calculate vertical and horizontal distances in the coordinate plane to find perimeter and area of rectangles.</p>	<p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p> <p>6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane</p>

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

7.G.3 Measurement: Students will identify geometric attributes that create two- and three-dimensional shapes in order to perform measurements and apply formulas to find area and volume.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.G.3.a</p> <p>Solve authentic problems involving perimeter and area of composite shapes made from triangles and quadrilaterals.</p>	<p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition</p> <p>7–8 M3 Lesson 6: Watering a Lawn</p> <p>7–8 M5 Lesson 11: Surface Areas of Prisms and Pyramids</p>
<p>7.G.3.b</p> <p>Determine surface area and volume of composite rectangular and triangular prisms.</p>	<p>7–8 M5 Lesson 11: Surface Areas of Prisms and Pyramids</p> <p>7–8 M5 Lesson 16: Volume of Prisms</p> <p>7–8 M5 Lesson 18: Designing a Fish Tank</p> <p>7–8 M5 Lesson 21: Volume of Composite Solids</p>
<p>7.G.3.c</p> <p>Determine the area and circumference of circles both on and off the coordinate plane using 3.14 for the value of Pi.</p>	<p>7–8 M3 Lesson 3: Exploring and Constructing Circles</p> <p>7–8 M3 Lesson 4: Area and Circumference of a Circle</p> <p>7–8 M3 Lesson 5: Area and Circumference of Circular Regions</p> <p>7–8 M3 Lesson 6: Watering a Lawn</p> <p><i>Supplemental material is necessary to address determining the circumference of circles on the coordinate plane.</i></p>

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

8.G.1 Attributes: Students will apply properties of angle relationships in triangles and with lines to determine angle measures.

**Nebraska’s College and Career Ready
Standards for Mathematics**

Aligned Components of *Eureka Math*²

<p>8.G.1.a</p> <p>Determine and use the relationships of the interior angles of a triangle to solve for missing measures.</p>	<p>7–8 M3 Lesson 13: Angle Sum of a Triangle</p> <p>7–8 M3 Lesson 14: Exterior Angles of Triangles</p>
<p>8.G.1.b</p> <p>Identify and apply geometric properties of parallel lines cut by a transversal and the resulting corresponding same side interior, alternate interior, and alternate exterior angles to find missing measures.</p>	<p>7–8 M3 Lesson 12: Lines Cut by a Transversal</p> <p>7–8 M3 Lesson 13: Angle Sum of a Triangle</p>

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

8.G.2 Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.G.2.a</p> <p>Perform and describe positions and orientations of shapes under single transformations including rotations in multiples of 90 degrees about the origin, translations, reflections, and dilations on and off the coordinate plane.</p>	<p>7–8 M3 Lesson 7: Motions of the Plane</p> <p>7–8 M3 Lesson 8: Translations, Reflections, and Rotations</p> <p>7–8 M3 Lesson 9: Rigid Motions on the Coordinate Plane</p> <p>7–8 M3 Lesson 22: Dilations</p> <p>7–8 M3 Lesson 23: Using Lined Paper to Explore Dilations</p> <p>7–8 M3 Lesson 24: Figures and Dilations</p> <p>7–8 M3 Lesson 25: The Shadowy Hand</p> <p>7–8 M3 Lesson 26: Dilations on the Coordinate Plane</p>
<p>8.G.2.b</p> <p>Determine if two-dimensional figures are congruent or similar.</p>	<p>7–8 M3 Lesson 10: Sequencing the Rigid Motions</p> <p>7–8 M3 Lesson 11: Showing Figures Are Congruent</p> <p>7–8 M3 Lesson 12: Lines Cut by a Transversal</p> <p>7–8 M3 Lesson 27: Similar Figures</p> <p>7–8 M3 Lesson 28: Exploring Angles in Similar Triangles</p>
<p>8.G.2.c</p> <p>Perform and describe positions and orientations of shapes under a sequence of transformations on and off the coordinate plane.</p>	<p>7–8 M3 Lesson 10: Sequencing the Rigid Motions</p> <p>7–8 M3 Lesson 11: Showing Figures Are Congruent</p> <p>7–8 M3 Lesson 26: Dilations on the Coordinate Plane</p>

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

8.G.3 Measurement: Students will reason with formulas and context to determine and compare length, area, and volume.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.G.3.a</p> <p>Explain a model of the Pythagorean Theorem.</p>	<p>7–8 M1 Lesson 19: The Pythagorean Theorem</p> <p>7–8 M3 Lesson 15: Proving the Pythagorean Theorem</p>
<p>8.G.3.b</p> <p>Apply the Pythagorean Theorem to find side lengths of triangles and to solve authentic problems.</p>	<p>7–8 M1 Lesson 19: The Pythagorean Theorem</p> <p>7–8 M3 Lesson 16: Proving the Converse of the Pythagorean Theorem</p> <p>7–8 M3 Lesson 17: Applications of the Pythagorean Theorem</p> <p>7–8 M3 Lesson 29: Using Similar Figures to Find Unknown Side Lengths</p> <p>7–8 M5 Lesson 19: Volumes of Pyramids and Cones</p>
<p>8.G.3.c</p> <p>Find the distance between any two points on the coordinate plane using the Pythagorean Theorem.</p>	<p>7–8 M3 Lesson 17: Applications of the Pythagorean Theorem</p>
<p>8.G.3.d</p> <p>Determine the volume of cones, cylinders, and spheres and solve authentic problems using volumes.</p>	<p>7–8 M5 Lesson 16: Volume of Prisms</p> <p>7–8 M5 Lesson 17: Volume of Cylinders</p> <p>7–8 M5 Lesson 18: Designing a Fish Tank</p> <p>7–8 M5 Lesson 19: Volumes of Pyramids and Cones</p> <p>7–8 M5 Lesson 20: Volume of Spheres</p> <p>7–8 M5 Lesson 21: Volume of Composite Solids</p> <p>7–8 M5 Lesson 22: Volumes of Truncated Cones and Pyramids</p> <p>7–8 M5 Lesson 23: Applications of Volume</p>

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

7.D.1 Data Collection and Statistical Methods: Students will formulate statistical investigative questions, collect data, and organize data.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.D.1.a Create an investigative question and collect data.</p>	<p>6 M6 Lesson 17: Developing a Statistical Project 6 M6 Lesson 22: Presenting Statistical Projects</p>
<p>7.D.1.b Generate conclusions about a population based on a random sample.</p>	<p>7–8 M6 Lesson 10: Populations and Samples 7–8 M6 Lesson 11: Selecting a Sample 7–8 M6 Lesson 12: Sampling Variability When Estimating a Population Mean 7–8 M6 Lesson 13: Sampling Variability and the Effect of Sample Size 7–8 M6 Lesson 14: Sampling Variability When Estimating a Population Proportion</p>
<p>7.D.1.c Identify and critique biases in various data representations.</p>	<p>7 Data Talk: Food Waste and the Environment 7 Data Talk: Where Does Our Energy Come From? 7 Data Talk: How Old Are the Members of Congress? 7 Data Talk: Coastal Clean Up 7 Data Talk: A Timeline of Organisms on Earth 7 Data Talk: Preserved Land in the United States 7 Data Talk: Language Diversity Across America 7 Data Talk: How Close Is the Airport? 7 Data Talk: A Day in the Life 7 Data Talk: Ice Hockey Championships 7 Data Talk: Let’s Go to the Moon!</p>

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.D.1.c <i>continued</i></p>	<p>7 Data Talk: The Monthly Cost of Groceries</p> <p>7 Data Talk: A Changing Population</p> <p>7 Data Talk: Called to Service</p>
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Data: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.D.3 Probability: Students will interpret and apply concepts of probability.

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>7.D.3.a</p> <p>Find theoretical and experimental probabilities for compound independent and dependent events.</p>	<p>7–8 M6 Lesson 4: Multistage Experiments</p> <p>7–8 M6 Lesson 8: Probability Simulations</p> <p>7–8 M6 Lesson 9: Simulations with Random Number Tables</p> <p><i>Supplemental material is necessary to address independent and dependent events.</i></p>
<p>7.D.3.b</p> <p>Identify complementary events and calculate their probabilities.</p>	<p>7–8 M6 Lesson 5: Outcomes That Are Not Equally Likely</p> <p><i>Supplemental material is necessary to address the term complementary events.</i></p>

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

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

Nebraska’s College and Career Ready Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>8.D.2.a</p> <p>Represent and interpret bivariate data (e.g., ordered pairs) using scatter plots.</p>	<p>7–8 M6 Lesson 18: Scatter Plots</p> <p>7–8 M6 Lesson 19: Patterns in Scatter Plots</p>
<p>8.D.2.b</p> <p>Describe patterns such as positive or negative association, linear or nonlinear association, clustering, and outliers when bivariate data is represented on a coordinate plane.</p>	<p>7–8 M6 Lesson 18: Scatter Plots</p> <p>7–8 M6 Lesson 19: Patterns in Scatter Plots</p>
<p>8.D.2.c</p> <p>Draw an informal line of best fit based on the closeness of the data points to the line.</p>	<p>7–8 M6 Lesson 20: Informally Fitting a Line to Data</p> <p>7–8 M6 Lesson 21: Linear Models</p>
<p>8.D.2.d</p> <p>Use a linear model to make predictions and interpret the rate of change and y-intercept in context.</p>	<p>7–8 M6 Lesson 20: Informally Fitting a Line to Data</p> <p>7–8 M6 Lesson 21: Linear Models</p>