Grade 6 | Minnesota K–12 Academic Standards in 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.

Standards for Mathematical Practice	Aligned Components of *Eureka Math²*
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.2 Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.3 Construct viable arguments and critique the reasoning of others.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.4 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.6 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 Look for and make use of structure.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.8 Look for and express regularity in repeated reasoning.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.

Data and Probability

Data Sciences: Identify, formulate and investigate statistical questions by collecting data, considering cultural perspectives, analyzing and interpreting data and communicating the results.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.1.1.1 Recognize a statistical question as one that anticipates variability in the data, compares differences between groups and collects categorical or numerical data related to the question, and accounts for it in the answer.	6 M6 Lesson 1: Posing Statistical Questions 6 M6 Lesson 6: Selecting a Data Display 6 M6 Lesson 17: Developing a Statistical Project 6 Data Talk: Tornadoes on the Move 6 Data Talk: The Human Cost of Unsafe Water 6 Data Talk: Median Age in Congress 6 Data Talk: Pitch Perfect 6 Data Talk: Monarchs on the Move 6 Data Talk: Hope for the Salmon 6 Data Talk: Unprovoked Shark Attacks 6 Data Talk: Camping Out in Our National Parks 6 Data Talk: Air Conditioners in New Homes 6 Data Talk: The ABCs of Baby Names 6 Data Talk: The Cost of Wildfires 6 Data Talk: Magmatic Eruptions at Mount St. Helens 6 Data Talk: Money Spent 6 Data Talk: Women as State Governors 6 Data Investigation: Baby Names 6 Data Investigation: Favorite Musician 6 Data Investigation: Drinking Water Violations

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.1.1.2 Design and conduct investigations and experiments to gather data, while considering cultural perspectives, to answer statistically investigative questions considering variability and justifying choice of variables.	6 M6 Lesson 1: Posing Statistical Questions 6 M6 Lesson 6: Selecting a Data Display 6 M6 Lesson 17: Developing a Statistical Project 6 Data Investigation: Baby Names 6 Data Investigation: Favorite Musician 6 Data Investigation: Drinking Water Violations *Supplemental material is necessary to address considering cultural perspectives.*
6.1.1.3 Identify, determine and interpret measures of center (mean and median) and measures of variability (range, interquartile range, mean-absolute deviation) to answer a statistically investigative question, summarizing the distribution of data using the measures of center and variability.	6 M6 Topic B: Mean and Mean Absolute Deviation 6 M6 Lesson 12: Using the Median to Describe the Center 6 M6 Lesson 13: Using the Interquartile Range to Describe Variability 6 M6 Lesson 15: More Practice with Box Plots 6 M6 Lesson 16: Interpreting Box Plots 6 M6 Lesson 19: Comparing Data Distributions 6 M6 Lesson 22: Presenting Statistical Projects

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.1.1.4 Create a visualization about a data set to describe patterns, highlight relationships or illustrate features of the distribution of the data to answer or help answer their statistically investigative question. Visualizations should represent the data in appropriate ways, including tables, dot plots, stem-and-leaf plots, histograms and box plots while incorporating any other relevant information that helps to tell a story about the data.	6 M6 Lesson 3: Creating a Dot Plot 6 M6 Lesson 4: Creating a Histogram 6 M6 Lesson 5: Comparing Data Displays 6 M6 Lesson 6: Selecting a Data Display 6 M6 Lesson 14: Using a Box Plot to Summarize a Distribution 6 M6 Lesson 15: More Practice with Box Plots 6 M6 Lesson 16: Interpreting Box Plots 6 M6 Lesson 19: Comparing Data Distributions 6 M6 Lesson 22: Presenting Statistical Projects *Supplemental material is necessary to address stem-and-leaf plots.*
6.1.1.5 Compare and communicate competing explanations for data trends observed, considering cultural perspectives and reasonable alternatives given the variability in findings	6 M6 Lesson 19: Comparing Data Distributions 6 Data Talk: Median Age in Congress 6 Data Talk: Unprovoked Shark Attacks 6 Data Talk: Money Spent 6 Data Talk: Women as State Governors *Supplemental material is necessary to address considering cultural perspectives.*

Data and Probability

Data Sciences: Identify, formulate and investigate statistical questions by collecting data, considering cultural perspectives, analyzing and interpreting data and communicating the results.r

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.1.2.1 Determine the sample space (set of possible outcomes) for a given experiment. Sample space may be determined by the use of tree diagrams, tables or pictorial representations.	7 M6 Lesson 3: Outcomes of Chance Experiments 7 M6 Lesson 4: Theoretical Probability 7 M6 Lesson 5: Multistage Experiments
6.1.2.2 Determine the theoretical probability of an event using the ratio between the size of the event and the size of the sample space. Represent probabilities as percentages, fractions and decimals between 0 and 1 inclusive.	7 M6 Topic A: Calculating and Interpreting Probabilities 7 M6 Topic B: Estimating Probabilities
6.1.2.3 Calculate experimental probabilities from experiments where the theoretical probability is known, recognizing that there may be differences between theoretical and experimental probability. Represent the probabilities as percentages, fractions and decimals between 0 and 1 inclusive. Use experimental probabilities to make predictions when actual probabilities are unknown.	7 M6 Lesson 6: Outcomes That Are Not Equally Likely 7 M6 Lesson 8: Picking Blue

Spatial Reasoning

Measurement: Investigate measurement using a variety of tools, units, systems, processes and techniques in various cultures. Explain and reason with attributes, estimations and formulas to communicate measurement(s) and relationships effectively. Justify decisions and consider the reasonableness of the measurement.r

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.2.3.1 Calculate the measurements of the surface area of rectangular and triangular prisms using appropriate units. Justify the formulas used. Justification may involve decomposition, nets or other models.	6 M5 Topic C: Nets and Surface Area
6.2.3.2 Calculate the measurement of the volume of prisms (including triangular and nonrectangular prisms) using appropriate units. Justify the formulas used. Justification may involve decomposition or other models.	6 M5 Topic D: Volumes of Right Rectangular Prisms
6.2.3.3 Solve situations in various contexts involving conversion of time, weights, capacities, lengths and area within measurement systems using appropriate units	6 M1 Lesson 19: Using Rates to Convert Units 6 M1 Lesson 20: Solving Rate Problems 6 M1 Lesson 21: Solving Multi-Step Rate Problems

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.2.3.4 Estimate time, weights, capacities, lengths and dollar amounts using benchmarks in measurement systems with appropriate units.	*Supplemental material is necessary to address this standard.*
6.2.3.5 Find the area of special quadrilaterals and polygons by composing into rectangles or decomposing into triangles and other shapes. Apply these techniques in contextual mathematical situations.	6 M5 Topic A: Areas of Polygons 6 M5 Topic B: Problem Solving with Area

Spatial Reasoning

Geometry: Analyze characteristics of geometric shapes to make mathematical arguments and justifications about geometric relationships. Use visualization and geometric modeling to compare, solve problems and communicate ideas.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.2.4.1 Determine missing angle measures in a triangle using the fact that the sum of the interior angles of a triangle is $180°$. Use models to illustrate this fact	7 M4 Lesson 4: Angles of a Triangle
6.2.4.2 Decompose polygons into triangles to investigate the sum of the interior angles of polygons	*Supplemental material is necessary to address this standard.*

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.2.4.3 Draw polygons in the coordinate plane given coordinates for the vertices. Use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in contextual situations.	6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane 6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane

Patterns and Relationships

Number Relationships: Describe, Interpret and use quantities, relationships between quantities, representations of quantities, and number systems. Describe operations and the relationship between operations. Use strategies and procedures accurately, efficiently and flexibly. Assess the reasonableness of the results.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.5.1 Use positive and negative numbers to describe quantities having opposite directions or values, represent quantities in contexts and explain the meaning of 0 in situations including credits/debits, temperature above/below zero, elevation above/below sea level and positive/negative electric charge.	6 M3 Lesson 1: Positive and Negative Numbers 6 M3 Lesson 4: Rational Numbers in Real-World Situations

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.5.2 Locate positive and negative rational numbers on a number line. Plot ordered pairs of positive and negative rational numbers on a coordinate grid.	6 M3 Lesson 3: Rational Numbers 6 M3 Lesson 11: Plotting Points in the Coordinate Plane 6 M3 Lesson 12: Reflections in the Coordinate Plane 6 M3 Lesson 13: Constructing the Coordinate Plane 6 M3 Topic D: Solving Problems in the Coordinate Plane
6.3.5.3 Interpret statements of inequality $(<, >, =)$ as statements about the relative position of two numbers on a number line, including positive and negative rational numbers in various forms.	6 M3 Lesson 5: Comparing Rational Numbers 6 M3 Lesson 6: Ordering Rational Numbers
6.3.5.4 Factor whole numbers. Express a whole number as a product of prime factors with exponents. Identify a prime number as a whole number greater than one whose only factors are one and itself	6 M2 Lesson 3: The Greatest Common Factor 6 M4 Lesson 3: Exploring Exponents

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.5.5 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum or difference of two whole numbers, from 1 through 100, with a common factor as a multiple of a sum or difference of two whole numbers with no common factor.	6 M2 Topic A: Factors, Multiples, and Divisibility 6 M4 Lesson 13: The Distributive Property 6 M4 Lesson 14: Using the Distributive Property to Factor Expressions
6.3.5.6 Understand the absolute value of a rational number as its distance from 0 on the number line. Interpret absolute value as magnitude for a positive or negative quantity in context.	6 M3 Lesson 7: Absolute Value

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.5.7 Estimate solutions to situations with whole numbers, fractions and decimals and use the estimates to assess the reasonableness of the results in the context of the situation	6 M1 Lesson 1: Jars of Jelly Beans 6 M1 Lesson 7: Graphs of Ratio Relationships 6 M1 Lesson 16: Speed 6 M1 Lesson 18: Comparing Rates 6 M1 Lesson 23: Finding the Percent 6 M2 Lesson 13: Decimal Addition and Subtraction 6 M2 Lesson 15: Decimal Multiplication 6 M2 Topic E: Division of Multi-Digit Numbers 6 M2 Lesson 21: Dividing a Decimal by a Whole Number 6 M2 Lesson 22: Dividing a Decimal by a Decimal Greater Than 1 6 M2 Lesson 23: Dividing a Decimal by a Decimal Less Than 1 6 M3 Lesson 14: Modeling with the Coordinate Plane 6 M4 Lesson 25: The Statue of Liberty 6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations 6 M6 Lesson 2: Describing a Data Distribution
6.3.5.8 Multiply and divide fractions and mixed numbers using visual models to represent the situation leading towards generalizable algorithms.	5 M3 Topic B: Multiplication of Fractions 5 M3 Topic C: Division with a Unit Fraction and a Whole Number 5 M4 Topic C: Multiplication of Decimal Numbers 5 M4 Topic D: Division of Decimal Numbers 5 M5 Lesson 12: Multiply mixed numbers. 6 M2 Topic B: Dividing Fractions 6 M2 Topic C: Dividing Fractions Fluently

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.5.9 Solve mathematical situations requiring arithmetic, including multiplication and division, with decimals, fractions and mixed numbers, explaining the solution pathway. Interpret quotients in the context of the situation.	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 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. 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. 6 M2 Topic B: Dividing Fractions 6 M2 Topic C: Dividing Fractions Fluently
6.3.5.10 Solve situations using the concept of unit rate $\frac{a}{b}$ associated with a ratio $a : b$ with $b \neq 0$, in context, including constant speed and unit pricing to make purchase decisions.	6 M1 Topic D: Rates 6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations 6 M5 Lesson 13: Surface Area in Real-World Situations

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.5.11 Solve percent situations using visual models including tables of equivalent ratios, tape diagrams or double number lines. Apply concepts of percentage including discounts, markups, tips and commission. Situations can include identifying the part given a whole and the percentage, and identifying the percentage given the part and the whole	6 M1 Topic E: Percents

Patterns and Relationships

Equivalence and Relational Thinking: Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, proportional relationships, algebraic expressions and equations.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.6.1 Generate equivalent numerical expressions involving positive rational numbers and justify why expressions are equivalent.	6 M4 Topic C: Equivalent Expressions Using the Properties of Operations
6.3.6.2 Determine equivalences among fractions, decimals and percentages involving rational numbers. Convert between equivalent representations.	6 M1 Topic E: Percents

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.6.3 Represent mathematical situations using expressions, equations and inequalities involving variables and positive rational numbers.	6 M4 Lesson 17: Equations and Solutions 6 M4 Lesson 18: Inequalities and Solutions 6 M4 Lesson 21: Solving Problems with Equations
6.3.6.4 Solve one-step equations, including equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all positive rational numbers. Use number sense, properties of arithmetic and the idea of maintaining equality on both sides of the equation. Interpret a solution in the original context and assess the reasonableness of results.	6 M4 Lesson 17: Equations and Solutions 6 M4 Lesson 19: Solving Equations with Addition and Subtraction 6 M4 Lesson 20: Solving Equations with Multiplication and Division 6 M4 Lesson 21: Solving Problems with Equations 6 M5 Lesson 2: The Area of a Right Triangle
6.3.6.5 Identify and use ratios to compare quantities. Understand that comparing quantities using ratios is not the same as comparing quantities using subtraction	6 M1 Topic A: Ratios 6 M1 Topic B: Collections of Equivalent Ratios 6 M1 Topic C: Comparing Ratio Relationships 6 M1 Lesson 16: Speed 6 M1 Lesson 18: Comparing Rates

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.6.6 Solve ratio and rate situations, including mixtures and concentrations, by modeling with tables of equivalent ratios, tape diagrams, double number lines or equations.	6 M1 Lesson 1: Jars of Jelly Beans 6 M1 Lesson 3: Ratios and Tape Diagrams 6 M1 Lesson 4: Exploring Ratios by Making Batches 6 M1 Lesson 5: Equivalent Ratios 6 M1 Lesson 6: Ratio Tables and Double Number Lines 6 M1 Lesson 8: Addition Patterns in Ratio Relationships 6 M1 Lesson 9: Multiplication Patterns in Ratio Relationships 6 M1 Lesson 10: Multiplicative Reasoning in Ratio Relationships 6 M1 Lesson 11: Applications of Ratio Reasoning 6 M4 Lesson 22: Relationship Between Two Variables 6 M4 Lesson 23: Graphs of Ratio Relationships

Patterns and Relationships

Patterns and Relationships: Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to generate questions, make predictions and solve mathematical problems.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
6.3.7.1 Use variables to represent two quantities in a situation that change in relationship to one another. Write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables and relate these to the equation.	6 M4 Topic E: Relating Variables by Using Tables, Graphs, and Equations