EUREKA MATH™

GREAT MINDS

ABOUT *EUREKA MATH*

Created by the nonprofit Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

ALIGNED

Eureka Math is the only curriculum found by EdReports.org to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses which demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

DATA

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

FULL SUITE OF RESOURCES

As a nonprofit, Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

GRADE 6 MATHEMATICS

The majority of the Grade 6 Nebraska Mathematics Standards are fully covered by the Grade 6 *Eureka Math* curriculum. The areas where the Grade 6 Nebraska Mathematics Standards and Grade 6 *Eureka Math* do not align will require the use of *Eureka Math* content from other grade levels or supplemental materials. A detailed analysis of alignment is provided in the table below. With strategic placement of supplemental materials, *Eureka Math* can ensure students are successful in achieving the proficiencies of the Nebraska Mathematics Standards while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

- Green indicates that the Nebraska standard is fully addressed in *Eureka Math*.
- Yellow indicates that the Nebraska standard may not be completely addressed in *Eureka Math*.
- Red indicates that the Nebraska standard is not addressed in *Eureka Math*.
- Blue indicates there is a discrepancy between the grade level at which this standard is addressed in the Nebraska standards and in *Eureka Math*.

Mathematical Processes	Aligned Components of *Eureka Math*
1: Solves mathematical problems. Through the use of appropriate academic and technical tools, students will make sense of mathematical problems and persevere in solving them. Students will draw upon their prior knowledge in order to employ critical thinking skills, reasoning skills, creativity, and innovative ability. Additionally, students will compute accurately and determine the reasonableness of solutions.	Lessons in every module engage students in making sense of problems and persevering in solving them as required by this standard. This habit of mind is analogous to the CCSSM Standards for Mathematical Practices 1, 2, and 5, which are specifically addressed in the following modules: G6 M1: Ratios and Unit Rates G6 M2: Arithmetic Operations Including Division of Fractions G6 M3: Rational Numbers G6 M4: Expressions and Equations G6 M6: Statistics
2: Models and represents mathematical problems. Students will analyze relationships in order to create mathematical models given a real-world situation or scenario. Conversely, students will describe situations or scenarios given a mathematical model.	Lessons in every module engage students in reasoning abstractly and quantitatively as required by this standard. This habit of mind is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules: G6 M3: Rational Numbers G6 M5: Area, Surface Area, and Volume Problems G6 M6: Statistics

Mathematical Processes	Aligned Components of *Eureka Math*
3: Communicates mathematical ideas effectively. Students will communicate mathematical ideas effectively and precisely. Students will critique the reasoning of others as well as provide mathematical justifications. Students will utilize appropriate communication approaches individually and collectively and through multiple methods, including writing, speaking, and listening.	Lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others as required by this standard. This habit of mind is analogous to the CCSSM Standards for Mathematical Practices 3 and 6, which are specifically addressed in the following modules: G6 M1: Ratios and Unit Rates G6 M2: Arithmetic Operations Including Division of Fractions G6 M3: Rational Numbers G6 M4: Expressions and Equations G6 M5: Area, Surface Area, and Volume Problems G6 M6: Statistics
4: Makes mathematical connections. Students will connect mathematical knowledge, ideas, and skills beyond the math classroom. This includes the connection of mathematical ideas to other topics within mathematics and to other content areas. Additionally, students will be able to describe the connection of mathematical knowledge and skills to their career interest as well as within authentic/real-world contexts.	Lessons in every module engage students in modeling with mathematics as required by this standard. This habit of mind is analogous to the CCSSM Standards for Mathematical Practices 7 and 8, which are specifically addressed in the following modules: G6 M1: Ratios and Unit Rates G6 M2: Arithmetic Operations Including Division of Fractions G6 M3: Rational Numbers G6 M4: Expressions and Equations

Category	Mathematics Standards	Aligned Components of *Eureka Math*
Number	**Numeric Relationships: Students will demonstrate, represent, and show relationships among fractions, decimals, percents, and integers within the base-ten number system.**	
	MA 6.1.1.a Determine common factors and common multiples using prime factorization of numbers with and without exponents.	G6 M2 Lesson 18: Least Common Multiple and Greatest Common Factor Note: Supplemental material is necessary to address prime factorization.
	MA 6.1.1.b Represent non-negative whole numbers using exponential notation.	G6 M4 Topic B: Special Notations of Operations G6 M4 Lesson 16: Write Expressions in Which Letters Stand for Numbers
	MA 6.1.1.c Compare and order rational numbers both on the number line and not on the number line.	G6 M3 Topic B: Order and Absolute Value
	MA 6.1.1.d Convert among fractions, decimals, and percents using multiple representations.	G6 M1 Lesson 24: Percent and Rates per 100 G6 M1 Lesson 25: A Fraction as a Percent
	MA 6.1.1.e Determine ratios from drawings, words, and manipulatives.	G6 M1: Ratios and Unit Rates
	MA 6.1.1.f Explain and determine unit rates.	G6 M1 Topic C: Unit Rates
	MA 6.1.1.g Model integers using drawings, words, manipulatives, number lines, and symbols.	G6 M3 Topic A: Understanding Positive and Negative Numbers on the Number Line

Category	Mathematics Standards	Aligned Components of *Eureka Math*
	MA 6.1.1.h Compare and order integers and absolute value both on the number line and not on the number line.	G6 M3: Rational Numbers
	MA 6.1.1.i Determine absolute value of rational numbers.	G6 M3 Lesson 11: Absolute Value—Magnitude and Distance G6 M3 Lesson 13: Statements of Order in the Real World
	Operations: Students will compute with fractions and decimals accurately.	
	MA 6.1.2.a Multiply and divide non-negative fractions and mixed numbers.	G5 M4: Multiplication and Division of Fractions and Decimal Fractions G6 M2 Topic A: Dividing Fractions by Fractions
	MA 6.1.2.b Evaluate expressions with positive exponents.	G6 M4 Topic B: Special Notations of Operations
	MA 6.1.2.c Divide multi-digit whole numbers using the standard algorithm.	G6 M2 Topic C: Dividing Whole Numbers and Decimals
	MA 6.1.2.d Add, subtract, multiply, and divide decimals using the standard algorithms.	G6 M2: Arithmetic Operations Including Division of Fractions
	MA 6.1.2.e Estimate and check reasonableness of answers using appropriate strategies and tools.	G6 M2: Arithmetic Operations Including Division of Fractions

Category	Mathematics Standards	Aligned Components of *Eureka Math*
Algebra	**Algebraic Relationships: Students will demonstrate, represent, and show relationships with expressions, equations, and inequalities.**	
	MA 6.2.1.a Create algebraic expressions (e.g., one operation, one variable as well as multiple operations, one variable) from word phrases.	G6 M4 Topic D: Expanding, Factoring, and Distributing Expressions G6 M4 Topic E: Expressing Operations in Algebraic Form G6 M4 Topic F: Writing and Evaluating Expressions and Formulas
	MA 6.2.1.b Recognize and generate equivalent algebraic expressions involving distributive property and combining like terms.	G6 M4 Lesson 11: Factoring Expressions G6 M4 Lesson 12: Distributing Expressions G7 M3 Lesson 6: Collecting Rational Number Like Terms
	MA 6.2.1.c Represent and analyze the relationship between two variables using graphs, tables, and one-step equations.	G6 M1 Lesson 14: From Ratio Tables, Equations, and Double Number Line Diagrams to Plots on the Coordinate Plane G6 M1 Lesson 15: A Synthesis of Representations of Equivalent Ratio Collections G6 M4 Topic G: Solving Equations
	Algebraic Processes: Students will apply the operational properties when evaluating expressions and solving expressions, equations, and inequalities.	
	MA 6.2.2.a Simplify expressions using the distributive property and combining like terms.	G6 M4 Lesson 11: Factoring Expressions G6 M4 Lesson 12: Distributing Expressions G7 M3 Topic A: Use Properties of Operations to Generate Equivalent Expressions

Category	Mathematics Standards	Aligned Components of *Eureka Math*
	MA 6.2.2.b Use substitution to determine if a given value for a variable makes an equation or inequality true.	G6 M4 Topic G: Solving Equations G6 M4 Topic H: Applications of Equations
	MA 6.2.2.c Evaluate numerical expressions, including absolute value and exponents, with respect to order of operations.	G6 M4 Topic B: Special Notations of Operations Note: Supplemental material is necessary to address absolute value expressions.
	MA 6.2.2.d Given the value of the variable, evaluate algebraic expressions (which may include absolute value) with respect to order of operations (non-negative rational numbers).	G6 M4 Topic B: Special Notations of Operations G6 M4 Topic C: Replacing Letters and Numbers Note: Supplemental material is necessary to address absolute value expressions.
	MA 6.2.2.e Solve one-step equations with non-negative rational numbers using addition, subtraction, multiplication, and division.	G6 M4 Topic G: Solving Equations G6 M4 Topic H: Applications of Equations
	MA 6.2.2.f Use equivalent ratios relating quantities with whole numbers to create a table. Find missing values in the table.	G6 M1 Topic B: Collections of Equivalent Ratios
	MA 6.2.2.g Represent inequalities on a number line (e.g., graph $x > 3$).	G6 M4 Lesson 33: From Equations to Inequalities G6 M4 Lesson 34: Writing and Graphing Inequalities in Real-World Problems

Category	Mathematics Standards	Aligned Components of *Eureka Math*
	Applications: Students will solve real-world problems involving ratios, unit rates, and percents.	
	MA 6.2.3.a Write equations (e.g., one operation, one variable) to represent real-world problems involving non-negative rational numbers.	G6 M4 Topic H: Applications of Equations
	MA 6.2.3.b Solve real-world problems involving non-negative rational numbers.	G6 M4: Expressions and Equations
	MA 6.2.3.c Solve real-world problems involving percents of numbers.	G6 M1 Topic D: Percent
	MA 6.2.3.d Solve real-world problems using ratios and unit rates.	G6 M1: Ratios and Unit Rates
Geometry	**Characteristics: Students will identify and describe geometric characteristics and create two- and three-dimensional shapes.**	
	MA 6.3.1.a Identify and create nets to represent two-dimensional drawings of prisms, pyramids, cylinders, and cones.	G6 M5 Lesson 15: Representing Three-Dimensional Figures Using Nets G6 M5 Lesson 16: Constructing Nets Note: Supplemental material is necessary to address cylinders and cones.

Category	Mathematics Standards	Aligned Components of *Eureka Math*
	Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.	
	MA 6.3.2.a Identify the ordered pair of a given point in the coordinate plane.	G6 M3 Lesson 14: Ordered Pairs
	MA 6.3.2.b Plot the location of an ordered pair in the coordinate plane.	G6 M3 Lesson 15: Locating Ordered Pairs on the Coordinate Plane
	MA 6.3.2.c Identify the quadrant of a given point in the coordinate plane.	G6 M3 Lesson 15: Locating Ordered Pairs on the Coordinate Plane
	MA 6.3.2.d Draw polygons in the coordinate plane given coordinates for the vertices.	G6 M3 Lesson 17: Drawing the Coordinate Plane and Points on the Plane
	MA 6.3.2.e Calculate vertical and horizontal distances in the coordinate plane to find perimeter and area.	G6 M3 Lesson 18: Distance on the Coordinate Plane G6 M3 Lesson 19: Problem Solving and the Coordinate Plane
	Measurement: Students will perform and compare measurements and apply formulas.	
	MA 6.3.3.a Determine the area of quadrilaterals, including parallelograms, trapezoids, and triangles by composition and decomposition of polygons as well as application of formulas.	G6 M5: Area, Surface Area, and Volume Problems

Category	Mathematics Standards	Aligned Components of *Eureka Math*
	MA 6.3.3.b Determine the surface area of rectangular prisms and triangular prisms using nets.	G6 M5 Topic D: Nets and Surface Area
	MA 6.3.3.c Apply volume formulas for rectangular prisms.	G6 M5 Topic C: Volume of Right Rectangular Prisms G6 M5 Lesson 19: Surface Area and Volume in the Real World G6 M5 Lesson 19a: Addendum Lesson for Modeling—Applying Surface Area and Volume to Aquariums
Data	**Representations: Students will create displays that represent data.**	
	MA 6.4.1.a Represent data using line plots, dot plots, box plots, and histograms.	G6 M6: Statistics
	Analysis & Applications: Students will analyze data to address the situation.	
	MA 6.4.2.a Solve problems using information presented in line plots, dot plots, box plots, and histograms.	G6 M6: Statistics
	MA 6.4.2.b Compare and interpret data sets based upon their graphical representations (e.g., center, spread, and shape).	G6 M6: Statistics
	MA 6.4.2.c Find and interpret the mean, median, mode, and range for a set of data.	G6 M6: Statistics Note: Supplemental material is necessary to address mode and range.

Category	Mathematics Standards	Aligned Components of *Eureka Math*
	MA 6.4.2.d Compare the mean, median, mode, and range from two sets of data.	G6 M6: Statistics Note: Supplemental material is necessary to address mode and range.