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 Missouri Learning Standards: Mathematics are fully covered by the Grade 6 *Eureka Math* curriculum. The primary area where the Grade 6 Missouri Learning Standards: Mathematics and Grade 6 *Eureka Math* do not align is in the domain of Data Analysis, Statistics and Probability. One standard from this domain will require the use of 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 Missouri Learning Standards: Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

- Green indicates that the Missouri standard is fully addressed in *Eureka Math*.
- Yellow indicates that the Missouri standard may not be completely addressed in *Eureka Math*.
- Red indicates that the Missouri 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 Missouri standards and in *Eureka Math*.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Ratios and Proportional Relationships	**Cluster: Understand and use ratios to solve problems.**	
	6.RP.A.1 Understand a ratio as a comparison of two quantities and represent these comparisons.	G6 M1: Ratios and Unit Rates
	6.RP.A.2 Understand the concept of a unit rate associated with a ratio, and describe the meaning of unit rate.	G6 M1 Topic C: Unit Rates
	6.RP.A.3 Solve problems involving ratios and rates.	
	a. Create tables of equivalent ratios, find missing values in the tables and plot the pairs of values on the Cartesian coordinate plane.	G6 M1 Topic B: Collections of Equivalent Ratios
	b. Solve unit rate problems.	G6 M1 Topic C: Unit Rates
	c. Solve percent problems.	G6 M1 Topic D: Percent
	d. Convert measurement units within and between two systems of measurement.	G6 M1 Lessons 21–22: Getting the Job Done—Speed, Work, and Measurement Units G6 M1 Lesson 23: Problem-Solving Using Rates, Units Rates, and Conversions

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
Number Sense and Operations	**Cluster: Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**		
	6.NS.A.1 Compute and interpret quotients of positive fractions.		
	a. Solve problems involving division of fractions by fractions.		G6 M2 Topic A: Dividing Fractions by Fractions
	Cluster: Compute with non-negative multi-digit numbers, and find common factors and multiples.		
	6.NS.B.2 Demonstrate fluency with division of multi-digit whole numbers.		G6 M2 Topic C: Dividing Whole Numbers and Decimals
	6.NS.B.3 Demonstrate fluency with addition, subtraction, multiplication and division of decimals.		G6 M2: Arithmetic Operations Including Division of Fractions

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	6.NS.B.4 Find common factors and multiples.		
	a. Find the greatest common factor (GCF) and the least common multiple (LCM).		G6 M2 Topic D: Number Theory—Thinking Logically About Multiplicative Arithmetic
	b. Use the distributive property to express a sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers.		G6 M2 Topic D: Number Theory—Thinking Logically About Multiplicative Arithmetic
	Cluster: Apply and extend previous understandings of numbers to the system of rational numbers.		
	6.NS.C.5 Use positive and negative numbers to represent quantities.		G6 M3 Topic A: Understanding Positive and Negative Numbers on the Number Line G6 M3 Lesson 13: Statements of Order in the Real World
	6.NS.C.6 Locate a rational number as a point on the number line.		
	a. Locate rational numbers on a horizontal or vertical number line.		G6 M3: Rational Numbers
	b. Write, interpret and explain problems of ordering of rational numbers.		G6 M3 Topic B: Order and Absolute Value
	c. Understand that a number and its opposite (additive inverse) are located on opposite sides of zero on the number line.		G6 M3 Lesson 4: The Opposite of a Number G6 M3 Lesson 5: The Opposite of a Number's Opposite

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	6.NS.C.7 Understand that the absolute value of a rational number is its distance from 0 on the number line.		G6 M3 Lesson 11: Absolute Value—Magnitude and Distance G6 M3 Lesson 13: Statements of Order in the Real World
	6.NS.C.8 Extend prior knowledge to generate equivalent representations of rational numbers between fractions, decimals and percentages (limited to terminating decimals and/or benchmark fractions of 1/3 and 2/3).		G6 M1 Lesson 24: Percent and Rates per 100 G6 M1 Lesson 25: A Fraction as a Percent
Expressions, Equations and Inequalities	**Cluster: Apply and extend previous understandings of arithmetic to algebraic expressions.**		
	6.EEI.A.1 Describe the difference between an expression and an equation.		G6 M4: Expressions and Equations
	6.EEI.A.2 Create and evaluate expressions involving variables and whole number exponents.		
	a. Identify parts of an expression using mathematical terminology.		G6 M4 Topic D: Expanding, Factoring, and Distributing Expressions G6 M4 Topic E: Expressing Operations in Algebraic Form
	b. Evaluate expressions at specific values of the variables.		G6 M4 Topic B: Special Notations of Operations G6 M4 Topic C: Replacing Letters and Numbers

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	c. Evaluate non-negative rational number expressions.	G6 M4 Topic B: Special Notations of Operations
	d. Write and evaluate algebraic expressions.	G6 M4: Expressions and Equations
	e. Understand the meaning of the variable in the context of the situation.	G6 M4 Topic C: Replacing Letters and Numbers G6 M4 Topic E: Expressing Operations in Algebraic Form G6 M4 Topic F: Writing and Evaluating Expressions and Formulas
	6.EEI.A.3 Identify and generate equivalent algebraic expressions using mathematical properties.	G6 M4 Topic C: Replacing Letters and Numbers G6 M4 Topic D: Expanding, Factoring, and Distributing Expressions
	Cluster: Reason about and solve one-variable equations and inequalities.	
	6.EEI.B.4 Use substitution to determine whether a given number in a specified set makes a one-variable equation or inequality true.	G6 M4 Topic G: Solving Equations G6 M4 Topic H: Applications of Equations
	6.EEI.B.5 Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.	G6 M4 Topic G: Solving Equations G6 M4 Topic H: Applications of Equations

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	6.EEI.B.6 Write and solve equations using variables to represent quantities, and understand the meaning of the variable in the context of the situation.		G6 M4 Topic G: Solving Equations G6 M4 Topic H: Applications of Equations
	6.EEI.B.7 Solve one-step linear equations in one variable involving non-negative rational numbers.		G6 M4 Lesson 33: From Equations to Inequalities G6 M4 Lesson 34: Writing and Graphing Inequalities in Real-World Problems
	6.EEI.B.8 Recognize that inequalities may have infinitely many solutions.		
	a. Write an inequality of the form $x > c$, $x < c$, $x \geq c$, or $x \leq c$ to represent a constraint or condition.		G6 M4 Lesson 33: From Equations to Inequalities G6 M4 Lesson 34: Writing and Graphing Inequalities in Real-World Problems
	b. Graph the solution set of an inequality.		G6 M4 Lesson 34: Writing and Graphing Inequalities in Real-World Problems

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	Cluster: Represent and analyze quantitative relationships between dependent and independent variables.	
	6.EEI.C.9 Identify and describe relationships between two variables that change in relationship to one another.	
	a. Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable.	G6 M4 Lesson 31: Problems in Mathematical Terms G6 M4 Lesson 32: Multi-Step Problems in the Real World
	b. Analyze the relationship between the dependent and independent variables using graphs, tables and equations and relate these representations to each other.	G6 M4 Topic F: Writing and Evaluating Expressions and Formulas
Geometry and Measurement	**Cluster: Solve problems involving area, surface area and volume.**	
	6.GM.A.1 Find the area of polygons by composing or decomposing the shapes into rectangles or triangles.	G6 M5: Area, Surface Area, and Volume Problems

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	6.GM.A.2 Find the volume of right rectangular prisms.		
	a. Understand that the volume of a right rectangular prism can be found by filling the prism with multiple layers of the base.		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
	b. Apply $V = l * w * h$ and $V = Bh$ to find the volume of right 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
	6.GM.A.3 Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane.		
	a. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the Cartesian coordinate plane.		G6 M3 Topic C: Rational Numbers and the Coordinate Plane
	b. Recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.		G6 M3 Lesson 16: Symmetry in the Coordinate Plane
	c. Find distances between points with the same first coordinate or the same second coordinate.		G6 M3 Lesson 18: Distance on the Coordinate Plane

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	d. Construct polygons in the Cartesian coordinate plane.		G6 M5 Topic B: Polygons on the Coordinate Plane
	6.GM.A.4 Solve problems using nets.		
	a. Represent three-dimensional figures using nets made up of rectangles and triangles.		G6 M5 Topic D: Nets and Surface Area
	b. Use nets to find the surface area of three-dimensional figures whose sides are made up of rectangles and triangles.		G6 M5 Topic D: Nets and Surface Area
Data Analysis, Statistics and Probability	**Cluster: Develop understanding of statistical variability.**		
	6.DSP.A.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers.		G6 M6 Lesson 1: Posing Statistical Questions
	6.DSP.A.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread and overall shape.		G6 M6: Statistics

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	6.DSP.A.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary from a single number.		G6 M6: Statistics
	Cluster: Summarize and describe distributions.		
	6.DSP.B.4 Display and interpret data.		
	a. Use dot plots, histograms and box plots to display and interpret numerical data.		G6 M6: Statistics
	b. Create and interpret circle graphs.		*Eureka Math* does not address circle graphs.
	6.DSP.B.5 Summarize numerical data sets in relation to the context.		
	a. Report the number of observations.		G6 M6: Statistics
	b. Describe the nature of the attribute under investigation, including how it was measured and its units of measurement.		G6 M6: Statistics

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	c. Give quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context of the data.		G6 M6: Statistics
	d. Analyze the choice of measures of center and variability based on the shape of the data distribution and/or the context of the data.		G6 M6: Statistics