



Grade 6 | Alabama Standards for Mathematical Content Correlation to Eureka Math^{2®}

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 Math*^{2®}, 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 Math*² 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 Math*² 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.

Student Mathematical Practices

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.	

Proportional Reasoning

Develop an understanding of ratio concepts and use reasoning about ratios to solve problems.

Alabama Standards for Mathematical Content

Aligned Components of Eureka Math²

G.PR.1 Use appropriate notations [\frac{a}{b}, a to b, a:b] to represent a proportional relationship between quantities and use ratio language to describe the relationship between quantities. 6 M1 Lesson 2: Introduction to Ratios 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 5: Equivalent Ratios 6 M1 Lesson 8: Addition Patterns in Ratio Relationships 6 M1 Lesson 10: Multiplicative Reasoning in Ratio Relationships 6 M1 Lesson 11: Applications of Ratio Reasoning
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6 M1 Lesson 10: Multiplicative Reasoning in Ratio Relationships
6 M1 Lesson 11: Applications of Ratio Reasoning
6.PR.2 6 M1 Lesson 15: The Value of the Ratio
Use unit rates to represent and describe 6 M1 Lesson 16: Speed
ratio relationships. 6 M1 Lesson 17: Rates
6 M1 Lesson 18: Comparing Rates
6 M1 Lesson 19: Using Rates to Convert Units
6 M1 Lesson 20: Solving Rate Problems

Aligned Components of Eureka Math²

6.PR.3

Use ratio and rate reasoning to solve mathematical and real-world problems (including but not limited to percent, measurement conversion, and equivalent ratios) using a variety of models, including tables of equivalent ratios, tape diagrams, double number lines, and 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 Topic B: Collections of Equivalent Ratios

6 M1 Topic C: Comparing Ratio Relationships

6 M1 Topic D: Rates

6 M1 Topic E: Percents

6 M4 Lesson 22: Relationship Between Two Variables

6 M4 Lesson 23: Graphs of Ratio Relationships

6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations

6 M5 Lesson 13: Surface Area in Real-World Situations

Number Systems and Operations

Use prior knowledge of multiplication and division to divide fractions.

Alabama Standards for Mathematical Content

Aligned Components of *Eureka Math*²

6.NSO.4	6 M2 Topic B: Dividing Fractions
Interpret and compute quotients of fractions using visual models and equations to represent problems.	6 M2 Topic C: Dividing Fractions Fluently
6.NSO.4.a	6 M2 Topic B: Dividing Fractions
Use quotients of fractions to analyze and solve problems.	6 M2 Topic C: Dividing Fractions Fluently

Number Systems and Operations

Compute multi-digit numbers fluently and determine common factors and multiples.

Alabama Standards for Mathematical Content

Aligned Components of Eureka Math²

6.NSO.5	6 M2 Lesson 17: Partial Quotients			
Fluently divide multi-digit whole numbers	6 M2 Lesson 18: The Standard Division Algorithm			
using a standard algorithm to solve real-world and mathematical problems.	6 M2 Lesson 19: Expressing Quotients as Decimals			
6.NSO.6	6 M2 Lesson 13: Decimal Addition and Subtraction			
Add, subtract, multiply, and divide	6 M2 Lesson 14: Patterns in Multiplying Decimals			
decimals using a standard algorithm.	6 M2 Lesson 15: Decimal Multiplication			
	6 M2 Topic F: Decimal Division			
6.NSO.7	6 M2 Topic A: Factors, Multiples, and Divisibility			
Use the distributive property to express	6 M4 Lesson 13: The Distributive Property			
the sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers with no common factor.	6 M4 Lesson 14: Using the Distributive Property to Factor Expressions			
6.NSO.8	6 M2 Topic A: Factors, Multiples, and Divisibility			
Find the greatest common factor (GCF)	6 M4 Lesson 13: The Distributive Property			
and least common multiple (LCM) of two or more whole numbers.	6 M4 Lesson 14: Using the Distributive Property to Factor Expressions			
6.NSO.8.a	6 M2 Lesson 3: The Greatest Common Factor			
Use factors and multiples to determine	6 M2 Lesson 4: The Least Common Multiple			
prime factorization.	6 M2 Lesson 5: The Euclidean Algorithm			
	6 M4 Lesson 3: Exploring Exponents			

Number Systems and Operations

Apply knowledge of the number system to represent and use rational numbers in a variety of forms.

Alabama Standards for Mathematical Content

Aligned Components of Eureka Math²

6.NSO.9	6 M3 Lesson 1: Positive and Negative Numbers		
Use signed numbers to describe quantities that have opposite directions or values and to represent quantities in real-world contexts.	6 M3 Lesson 4: Rational Numbers in Real-World Situations		
6.NSO.10	6 M3 Lesson 3: Rational Numbers		
Locate integers and other rational numbers on a horizontal or vertical line diagram.	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.NSO.10.a	6 M3 Lesson 2: Integers		
Define opposites as numbers located	6 M3 Lesson 3: Rational Numbers		
on opposite sides of 0 and the same distance from 0 on a number line.	6 M3 Lesson 4: Rational Numbers in Real-World Situations		
6.NSO.10.b	6 M3 Lesson 1: Positive and Negative Numbers		
Use rational numbers in real-world and mathematical situations, explaining the meaning of 0 in each situation.	6 M3 Lesson 4: Rational Numbers in Real-World Situations		

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6.NSO.11	6 M3 Lesson 3: Rational Numbers		
Find the position of pairs of integers	6 M3 Lesson 11: Plotting Points in the Coordinate Plane		
and other rational numbers on the coordinate plane.	6 M3 Lesson 12: Reflections in the Coordinate Plane		
coordinate plane.	6 M3 Lesson 13: Constructing the Coordinate Plane		
	6 M3 Topic D: Solving Problems in the Coordinate Plane		
6.NSO.11.a	6 M3 Lesson 10: The Four Quadrants of the Coordinate Plane		
Identify quadrant locations of ordered	6 M3 Lesson 11: Plotting Points in the Coordinate Plane		
pairs on the coordinate plane based	6 M3 Lesson 12: Reflections in the Coordinate Plane		
on the signs of the x and y coordinates.	6 M3 Lesson 13: Constructing the Coordinate Plane		
6.NSO.11.b	6 M3 Lesson 10: The Four Quadrants of the Coordinate Plane		
Identify (a,b) and $(a,-b)$ as reflections	6 M3 Lesson 11: Plotting Points in the Coordinate Plane		
across the x -axis.	6 M3 Lesson 12: Reflections in the Coordinate Plane		
	6 M3 Lesson 13: Constructing the Coordinate Plane		
6.NSO.11.c	6 M3 Lesson 10: The Four Quadrants of the Coordinate Plane		
Identify (a,b) and $(-a,b)$ as reflections across the y -axis.	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		

Aligned Components of Eureka Math²

6.NSO.11.d	6 M3 Lesson 14: Modeling with the Coordinate Plane	
Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane, including finding distances between points with the same first or second coordinate.	6 M3 Topic D: Solving Problems in the Coordinate Plane 6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane	
6.NSO.12 Explain the meaning of absolute value and determine the absolute value of rational numbers in real-world contexts.	6 M3 Lesson 7: Absolute Value	
6.NSO.13 Compare and order rational numbers and absolute value of rational numbers with and without a number line in order to solve real-world and mathematical problems.	6 M3 Lesson 5: Comparing Rational Numbers 6 M3 Lesson 6: Ordering Rational Numbers 6 M3 Lesson 8: Absolute Value and Order 6 M3 Lesson 9: Interpreting Order and Distance in Real-World Situations	

Algebra and Functions

Apply knowledge of arithmetic to read, write, and evaluate algebraic expressions.

Alabama Standards for Mathematical Content

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6.AF.14	6 M4 Topic A: Numerical Expressions
Write, evaluate, and compare expressions involving whole number exponents.	
6.AF.15	This standard is fully addressed by the lessons aligned to its subsections.
Write, read, and evaluate expressions in which letters represent numbers in real-world contexts.	
6.AF.15.a	6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations
Interpret a variable as an unknown	6 M4 Lesson 10: Multiplication and Division Expressions from Real-World Situations
value for any number in a specified set,	6 M4 Lesson 11: Modeling Real-World Situations with Expressions
depending on the context.	6 M4 Lesson 16: Equivalent Algebraic Expressions
6.AF.15.b	6 M4 Lesson 7: Algebraic Expressions with Addition and Subtraction
Write expressions to represent verbal	6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division
statements and real-world scenarios.	6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations
6.AF.15.c	6 M4 Lesson 7: Algebraic Expressions with Addition and Subtraction
Identify parts of an expression using	6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division
mathematical terms such as sum, term,	6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations
product, factor, quotient, and coefficient.	6 M4 Lesson 11: Modeling Real-World Situations with Expressions

Aligned Components of Eureka Math²

6.AF.15.d	6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division	
Evaluate expressions (which may include	6 M4 Lesson 11: Modeling Real-World Situations with Expressions	
absolute value and whole number exponents) with respect to order of operations.	6 M4 Lesson 12: Applying Properties to Multiplication and Division Expressions	
	6 M4 Lesson 17: Equations and Solutions	
	6 M5 Lesson 1: The Area of a Parallelogram	
	6 M5 Lesson 3: The Area of a Triangle	
	6 M5 Lesson 12: From Nets to Surface Area	
	6 M5 Lesson 13: Surface Area in Real-World Situations	
	6 M5 Lesson 14: Designing a Box	
	6 M5 Lesson 16: Applying Volume Formulas	
6.AF.16	6 M4 Topic C: Equivalent Expressions Using the Properties of Operations	
Generate equivalent algebraic expressions	6 M5 Lesson 4: Areas of Triangles in Real-World Situations	
using the properties of operations, including inverse, identity, commutative, associative, and distributive.	6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane	
	6 M5 Lesson 7: Area of Trapezoids and Other Polygons	
6.AF.17	6 M4 Topic C: Equivalent Expressions Using the Properties of Operations	
Determine whether two expressions are	6 M5 Lesson 7: Area of Trapezoids and Other Polygons	
equivalent and justify the reasoning.	6 M5 Lesson 12: From Nets to Surface Area	
	6 M5 Lesson 17: Problem Solving with Volume	

Algebra and Functions

Use equations and inequalities to represent and solve real-world or mathematical problems.

Alabama Standards for Mathematical Content

Aligned Components of Eureka Math²

6.AF.18 Determine whether a value is a solution to an equation or inequality by using substitution to conclude whether a given value makes the equation or inequality true.	 6 M4 Lesson 17: Equations and Solutions 6 M4 Lesson 18: Inequalities and Solutions 6 M4 Lesson 19: Solving Equations with Addition and Subtraction 6 M4 Lesson 20: Solving Equations with Multiplication and Division
6.AF.19 Write and solve an equation in the form of $x + p = q$ or $px = q$ for cases in which p , q , and x are all non-negative rational numbers to solve real-world and mathematical problems.	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.AF.19.a Interpret the solution of an equation in the context of the problem.	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.AF.20 Write and solve inequalities in the form of $x > c$, $x < c$, $x \ge c$, or $x \le c$ to represent a constraint or condition in a real-world or mathematical problem.	6 M4 Lesson 18: Inequalities and Solutions

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6.AF.20.α	6 M4 Lesson 18: Inequalities and Solutions
Interpret the solution of an inequality in the context of a problem.	
6.AF.20.b	6 M4 Lesson 18: Inequalities and Solutions
Represent the solutions of inequalities on a number line and explain that the solution set may contain infinitely many solutions.	

Algebra and Functions

Identify and analyze relationships between independent and dependent variables.

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6.AF.21	6 M4 Topic E: Relating Variables by Using Tables, Graphs, and Equations
Identify, represent, and analyze two quantities that change in relationship to one another in real-world or mathematical situations.	
6.AF.21.a	6 M4 Topic E: Relating Variables by Using Tables, Graphs, and Equations
Use tables, graphs, and equations to represent the relationship between independent and dependent variables.	

Data Analysis, Statistics, and Probability

Use real-world and mathematical problems to analyze data and demonstrate an understanding of statistical variability and measures of center.

Alabama Standards for Mathematical Content

Aligned Components of Eureka Math²

6.DSP.22	6 M6 Lesson 1: Posing Statistical Questions		
Write examples and non-examples of	6 M6 Lesson 6: Selecting a Data Display		
statistical questions, explaining that a statistical question anticipates variability in the data related to the question.	6 M6 Lesson 17: Developing a Statistical Project		
6.DSP.23	6 M6 Lesson 2: Describing a Data Distribution		
Calculate, interpret, and compare	6 M6 Lesson 3: Creating a Dot Plot		
measures of center (mean, median, mode) and variability (range and interquartile range) in real-world data sets.	6 M6 Lesson 4: Creating a Histogram		
	6 M6 Lesson 7: Using the Mean to Describe the Center		
	6 M6 Lesson 8: The Mean as a Balance Point		
	6 M6 Lesson 9: Variability in a Data Distribution		
	6 M6 Topic C: Median, Interquartile Range, and Box Plots		
	6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures		
	6 M6 Lesson 19: Comparing Data Distributions		
	6 M6 Lesson 22: Presenting Statistical Projects		
	Supplemental material is necessary to address calculating mode.		
6.DSP.23.a	6 M6 Lesson 20: Choosing a Measure of Center		
Determine which measure of center best represents a real-world data set.			

Aligned Components of Eureka Math²

6.DSP.23.b	6 M6 Lesson 20: Choosing a Measure of Center		
Interpret the measures of center and variability in the context of a problem.			
6.DSP.24	6 M6 Lesson 3: Creating a Dot Plot		
Represent numerical data graphically,	6 M6 Lesson 4: Creating a Histogram		
using dot plots, line plots, histograms, stem and leaf plots, and box plots.	6 M6 Lesson 5: Comparing Data Displays		
stem and lear plots, and box plots.	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 needed to address representing numerical data using stem and leaf plots.		
6.DSP.24.a	6 M6 Lesson 7: Using the Mean to Describe the Center		
Analyze the graphical representation of	6 M6 Lesson 8: The Mean as a Balance Point		
data by describing the center, spread, shape (including approximately symmetric or skewed), and unusual features (including gaps, peaks, clusters, and	6 M6 Lesson 10: The Mean Absolute Deviation		
	6 M6 Lesson 11: Using the Mean and Mean Absolute Deviation		
	6 M6 Lesson 12: Using the Median to Describe the Center		
extreme values).	6 M6 Lesson 13: Using the Interquartile Range to Describe Variability		
	6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures		
	6 M6 Lesson 21: Comparing Measures of Variability		

Aligned Components of Eureka Math²

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Use graphical representations of real-world data to describe the context from which they were collected.

Supplemental material is necessary to address this standard.

Geometry and Measurement

Graph polygons in the coordinate plane to solve real-world and mathematical problems.

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Aligned Components of Eureka Math²

6.GM.25	6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane	
Graph polygons in the coordinate plane given coordinates of the vertices to solve real-world and mathematical problems.	6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane	
6.GM.25.a	6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane	
Determine missing vertices of a rectangle with the same <i>x</i> -coordinate or the same <i>y</i> -coordinate when graphed in the coordinate plane.	6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane	
6.GM.25.b	6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane	
Use coordinates to find the length of a side between points having the same <i>x</i> -coordinate or the same <i>y</i> -coordinate.	6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane	
6.GM.25.c	6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane	
Calculate perimeter and area of a polygon graphed in the coordinate plane.		

Geometry and Measurement

Solve real-world and mathematical problems to determine area, surface area, and volume.

Alabama Standards for Mathematical Content

Aligned Components of Eureka Math²

6.GM.26	6 M5 Topic A: Areas of Polygons
Calculate the area of triangles, special quadrilaterals, and other polygons by composing and decomposing them into known shapes.	6 M5 Topic B: Problem Solving with Area
6.GM.26.a	6 M5 Topic A: Areas of Polygons
Apply the techniques of composing and decomposing polygons to find area in the context of solving real-world and mathematical problems.	6 M5 Topic B: Problem Solving with Area
6.GM.27	6 M5 Topic C: Nets and Surface Area
Determine the surface area of three-dimensional figures by representing them with nets composed of rectangles and triangles to solve real-world and mathematical problems.	6 M5 Lesson 19: Volume and Surface Area in Real-World Situations
6.GM.28	6 M5 Topic D: Volumes of Right Rectangular Prisms
Apply previous understanding of volume of right rectangular prisms to those with fractional edge lengths to solve real-world and mathematical problems.	

to find and compare volumes of right

rectangular prisms.

Aligned Components of Eureka Math²

6.GM.28.d	6 M5 Topic D:
Use models (cubes or drawings) and the	
volume formulas ($V = lwh$ and $V = Bh$)	

6 M5 Topic D: Volumes of Right Rectangular Prisms