

Grade 6 | Georgia State Standards for Mathematics 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 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 right into the teacher materials.

Accessibility

*Eureka Math*² 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 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.

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.

Standards for Mathematical Practice	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 practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.2 Reason abstractly and quantitatively.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.3 Construct viable arguments and critique the reasoning of others.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.4 Model with mathematics.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.5 Use appropriate tools strategically.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.6 Attend to precision.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.7 Look for and make use of structure.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>

Numerical Reasoning

6.NR.1 Solve relevant, mathematical problems involving operations with whole numbers, fractions, and decimal numbers.

Georgia State Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>6.NR.1.1</p> <p>Fluently add and subtract any combination of fractions to solve problems.</p>	<p>5 M2 Topic B: Addition and Subtraction of Fractions by Making Like Units</p> <p>5 M2 Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers.</p>
<p>6.NR.1.2</p> <p>Multiply and divide any combination of whole numbers, fractions, and mixed numbers using a student-selected strategy. Interpret products and quotients of fractions and solve word problems.</p>	<p>5 M3 Topic B: Multiplication of Fractions</p> <p>6 M2 Topic B: Dividing Fractions</p> <p>6 M2 Topic C: Dividing Fractions Fluently</p>
<p>6.NR.1.3</p> <p>Perform operations with multi-digit decimal numbers fluently using models and student-selected strategies.</p>	<p>6 M2 Topic C: Dividing Fractions Fluently</p> <p>6 M2 Topic F: Decimal Division</p>

Numerical Reasoning

6.NR.2 Apply operations with whole numbers, fractions, and decimals within relevant applications.

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<p>6.NR.2.1</p> <p>Describe and interpret the center of the distribution by the equal share value (mean).</p>	<p>6 M6: Statistics</p>

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<p>6.NR.2.2</p> <p>Summarize categorical and quantitative (numerical) data sets in relation to the context: display the distributions of quantitative (numerical) data in plots on a number line, including dot plots, histograms, and box plots and display the distribution of categorical data using bar graphs.</p>	<p>6 M6: Statistics</p>
<p>6.NR.2.3</p> <p>Interpret numerical data to answer a statistical investigative question created. Describe the distribution of a quantitative (numerical) variable collected, including its center, variability, and overall shape.</p>	<p>6 M6 Topic B: Mean and Mean Absolute Deviation</p> <p>6 M6 Lesson 12: Using the Median to Describe the Center</p> <p>6 M6 Lesson 13: Using the Interquartile Range to Describe Variability</p> <p>6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures</p> <p>6 M6 Lesson 21: Comparing Measures of Variability</p>
<p>6.NR.2.4</p> <p>Design simple experiments and collect data. Use data gathered from realistic scenarios and simulations to determine quantitative measures of center (median and/or mean) and variability (interquartile range and range). Use these quantities to draw conclusions about the data, compare different numerical data sets, and make predictions.</p>	<p>7 M6 Lesson 12: Selecting a Sample</p> <p>7 M6 Topic D: Comparing Populations</p>

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<p>6.NR.2.5</p> <p>Relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.</p>	<p>6 M6 Lesson 20: Choosing a Measure of Center</p>
<p>6.NR.2.6</p> <p>Describe the impact that inserting or deleting a data point has on the mean and the median of a data set. Create data displays using a dot plot or box plot to examine this impact.</p>	<p>6 M6 Lesson 12: Using the Median to Describe the Center</p> <p>6 M6 Lesson 20: Choosing a Measure of Center</p>

Numerical Reasoning

6.NR.3 Solve a variety of problems involving whole numbers and their opposites; model rational numbers on a number line to describe problems presented in relevant, mathematical situations.

Georgia State Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>6.NR.3.1</p> <p>Identify and compare integers and explain the meaning of zero based on multiple authentic situations.</p>	<p>6 M3 Topic A: Integers and Rational Numbers</p> <p>6 M3 Lesson 5: Comparing Rational Numbers</p> <p>6 M3 Lesson 6: Ordering Rational Numbers</p>
<p>6.NR.3.2</p> <p>Order and plot integers on a number line and use distance from zero to discover the connection between integers and their opposites.</p>	<p>6 M3: Rational Numbers</p>

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<p>6.NR.3.3</p> <p>Recognize and explain that opposite signs of integers indicate locations on opposite sides of zero on the number line; recognize and explain that the opposite of the opposite of a number is the number itself.</p>	<p>6 M3 Topic A: Integers and Rational Numbers</p>
<p>6.NR.3.4</p> <p>Write, interpret, and explain statements of order for rational numbers in authentic, mathematical situations. Compare rational numbers, including integers, using equality and inequality symbols.</p>	<p>6 M3 Lesson 5: Comparing Rational Numbers</p> <p>6 M3 Lesson 6: Ordering Rational Numbers</p>
<p>6.NR.3.5</p> <p>Explain the absolute value of a rational number as its distance from zero on the number line; interpret absolute value as distance for a positive or negative quantity in a relevant situation.</p>	<p>6 M3 Lesson 7: Absolute Value</p>
<p>6.NR.3.6</p> <p>Distinguish comparisons of absolute value from statements about order.</p>	<p>6 M3 Lesson 8: Absolute Value and Order</p> <p>6 M3 Lesson 9: Interpreting Order and Distance in Real-World Situations</p>

Numerical Reasoning

6.NR.4 Solve a variety of contextual problems involving ratios, unit rates, equivalent ratios, percentages, and conversions within measurement systems using proportional reasoning.

Georgia State Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>6.NR.4.1</p> <p>Explain the concept of a ratio, represent ratios, and use ratio language to describe a relationship between two quantities.</p>	<p>6 M1 Topic A: Ratios</p> <p>6 M1 Topic B: Collections of Equivalent Ratios</p>
<p>6.NR.4.2</p> <p>Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.</p>	<p>6 M1 Topic B: Collections of Equivalent Ratios</p> <p>6 M1 Topic C: Comparing Ratio Relationships</p> <p>6 M1 Lesson 16: Speed</p> <p>6 M1 Lesson 18: Comparing Rates</p>
<p>6.NR.4.3</p> <p>Solve problems involving proportions using a variety of student-selected strategies.</p>	<p>6 M1 Topic A: Ratios</p> <p>6 M1 Topic B: Collections of Equivalent Ratios</p> <p>6 M4 Topic E: Relating Variables by Using Tables, Graphs, and Equations</p>
<p>6.NR.4.4</p> <p>Describe the concept of rates and unit rate in the context of a ratio relationship.</p>	<p>6 M1 Lesson 15: The Value of the Ratio</p> <p>6 M1 Topic D: Rates</p>
<p>6.NR.4.5</p> <p>Solve unit rate problems including those involving unit pricing and constant speed.</p>	<p>6 M1 Topic D: Rates</p> <p>6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations</p> <p>6 M5 Lesson 13: Surface Area in Real-World Situations</p>

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<p>6.NR.4.6</p> <p>Calculate a percent of a quantity as a rate per 100 and solve everyday problems given a percent.</p>	<p>6 M1 Topic E: Percents</p>
<p>6.NR.4.7</p> <p>Use ratios to convert within measurement systems (customary and metric) to solve authentic problems that exist in everyday life.</p>	<p>5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.</p> <p>5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.</p> <p>6 M1 Topic D: Rates</p>

Geometric and Spatial Reasoning

6.GSR.5 Solve relevant problems involving area, surface area, and volume.

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<p>6.GSR.5.1</p> <p>Explore area as a measurable attribute of triangles, quadrilaterals, and other polygons conceptually by composing or decomposing into rectangles, triangles, and other shapes. Find the area of these geometric figures to solve problems.</p>	<p>6 M5: Area, Surface Area, and Volume</p>
<p>6.GSR.5.2</p> <p>Given the net of three-dimensional figures with rectangular and triangular faces, determine the surface area of these figures.</p>	<p>6 M5 Topic C: Nets and Surface Area</p> <p>6 M5 Lesson 19: Volume and Surface Area in Real-World Situations</p>

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<p>6.GSR.5.3</p> <p>Calculate the volume of right rectangular prisms with fractional edge lengths by applying the formula, $V = (\text{area of base}) \times (\text{height})$.</p>	<p>6 M5 Topic D: Volumes of Right Rectangular Prisms</p>
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Patterning and Algebraic Reasoning

6.PAR.6 Identify, write, evaluate, and interpret numerical and algebraic expressions as mathematical models to explain authentic situations.

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<p>6.PAR.6.1</p> <p>Write and evaluate numerical expressions involving rational bases and whole-number exponents.</p>	<p>6 M4 Topic A: Numerical Expressions</p>
<p>6.PAR.6.2</p> <p>Determine greatest common factors and least common multiples using a variety of strategies to make sense of applicable problems.</p>	<p>6 M2 Topic A: Factors, Multiples, and Divisibility</p> <p>6 M4 Lesson 13: The Distributive Property</p> <p>6 M4 Lesson 14: Using the Distributive Property to Factor Expressions</p>
<p>6.PAR.6.3</p> <p>Write and read expressions that represent operations with numbers and variables in realistic situations.</p>	<p>6 M4 Lesson 7: Algebraic Expressions with Addition and Subtraction</p> <p>6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division</p> <p>6 M4 Lesson 9: Addition and Subtraction Expressions from Real-World Situations</p> <p>6 M4 Lesson 11: Modeling Real-World Situations with Expressions</p>

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<p>6.PAR.6.4</p> <p>Evaluate expressions when given values for the variables, including expressions that arise in everyday situations.</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: Area, Surface Area, and Volume</p>
<p>6.PAR.6.5</p> <p>Apply the properties of operations to identify and generate equivalent expressions.</p>	<p>6 M4 Topic C: Equivalent Expressions Using the Properties of Operations</p> <p>6 M5 Lesson 7: Areas of Trapezoids and Other Polygons</p> <p>6 M5 Lesson 12: From Nets to Surface Area</p> <p>6 M5 Lesson 17: Problem Solving with Volume</p>

Patterning and Algebraic Reasoning

6.PAR.7 Write and solve one-step equations and inequalities as mathematical models to explain authentic, realistic situations.

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<p>6.PAR.7.1</p> <p>Solve one-step equations and inequalities involving variables when values for the variables are given. Determine whether an equation and inequality involving a variable is true or false for a given value of the variable.</p>	<p>6 M4 Topic D: Equations and Inequalities</p>

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<p>6.PAR.7.2</p> <p>Write one-step equations and inequalities to represent and solve problems; explain that a variable can represent an unknown number or any number in a specified set.</p>	<p>6 M4 Topic D: Equations and Inequalities</p> <p>6 M4 Topic E: Relating Variables by Using Tables, Graphs, and Equations</p> <p>6 M5 Lesson 7: Areas of Trapezoids and Other Polygons</p> <p>6 M5 Lesson 12: From Nets to Surface Area</p> <p>6 M5 Lesson 17: Problem Solving with Volume</p>
<p>6.PAR.7.3</p> <p>Solve problems by writing and solving equations of the form $x \pm p = q$, $px = q$, and $\frac{x}{p} = q$ for cases in which p, q, and x are all nonnegative rational numbers.</p>	<p>6 M4 Topic D: Equations and Inequalities</p> <p>6 M4 Lesson 21: Solving Problems with Equations</p> <p>6 M5 Lesson 2: The Area of a Right Triangle</p>
<p>6.PAR.7.4</p> <p>Recognize and generate inequalities of the form $x > c$, $x \geq c$, $x < c$, or $x \leq c$ to explain situations that have infinitely many solutions; represent solutions of such inequalities on a number line.</p>	<p>6 M4 Lesson 18: Inequalities and Solutions</p>

Patterning and Algebraic Reasoning

6.PAR.8 Graph rational numbers as points on the coordinate plane to represent and solve contextual, mathematical problems; draw polygons using the coordinates for their vertices and find the length of a side of a polygon.

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<p>6.PAR.8.1</p> <p>Locate and position rational numbers on a horizontal or vertical number line; find and position pairs of integers and other rational numbers on a coordinate plane.</p>	<p>6 M3 Topic A: Integers and Rational Numbers</p> <p>6 M3 Lesson 10: The Four Quadrants of the Coordinate Plane</p> <p>6 M3 Lesson 11: Plotting Points in the Coordinate Plane</p>
<p>6.PAR.8.2</p> <p>Show and explain that signs of numbers in ordered pairs indicate locations in quadrants of the coordinate plane and determine how two ordered pairs may differ based only on the signs.</p>	<p>6 M3 Topic C: The Coordinate Plane</p>
<p>6.PAR.8.3</p> <p>Solve problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same x-coordinate or the same y-coordinate.</p>	<p>6 M3 Lesson 14: Modeling with the Coordinate Plane</p> <p>6 M3 Topic D: Solving Problems in the Coordinate Plane</p> <p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p>

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<p>6.PAR.8.4</p> <p>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 x-coordinate or the same y-coordinate.</p>	<p>6 M5 Topic B: Problem Solving with Area</p>
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