# EUREKA MATH<sup>2</sup>...

## Grade 8 | Missouri Mathematics Learning Standards Correlation to Eureka Math<sup>2™</sup>

When the original *Eureka Math*<sup>®</sup> curriculum was released, it quickly became the most widely used K-5 mathematics curriculum in the country. Now, the Great Minds<sup>®</sup> teacher-writers have created *Eureka Math*<sup>2TM</sup>, 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*<sup>2</sup> 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* and moments that have been delighting students and teachers for years, it also boasts these exciting new features:

### Teachability

*Eureka Math*<sup>2</sup> employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering highquality 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*<sup>2</sup> 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*<sup>2</sup> 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*<sup>2</sup> 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<sup>2</sup></i>
<b>MP.1</b>	Lessons in every module engage students in mathematical practices.
Make sense of problems and persevere in solving them.	These are indicated in margin notes included with every lesson.
MP.2	Lessons in every module engage students in mathematical practices.
Reason abstractly and quantitatively.	These are indicated in margin notes included with every lesson.
<b>MP.3</b>	Lessons in every module engage students in mathematical practices.
Construct viable arguments and critique the reasoning of others.	These are indicated in margin notes included with every lesson.
MP.4	Lessons in every module engage students in mathematical practices.
Model with mathematics.	These are indicated in margin notes included with every lesson.
<b>MP.5</b>	Lessons in every module engage students in mathematical practices.
Use appropriate tools strategically.	These are indicated in margin notes included with every lesson.
MP.6	Lessons in every module engage students in mathematical practices.
Attend to precision.	These are indicated in margin notes included with every lesson.
MP.7	Lessons in every module engage students in mathematical practices.
Look for and make use of structure.	These are indicated in margin notes included with every lesson.
MP.8	Lessons in every module engage students in mathematical practices.
Look for and express regularity in repeated reasoning.	These are indicated in margin notes included with every lesson.

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## Number Sense and Operations

8.NS.A Know that there are numbers that are not rational, and approximate them by rational numbers.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.NS.A.1	This standard is fully addressed by the lessons aligned to its subsections.
Explore the real number system.	
8.NS.A.1.a	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1
Know the differences between rational and irrational numbers.	8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.A.1.b	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1
Understand that all rational numbers have a decimal expansion that terminates or repeats.	8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.A.1.c	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1
Convert decimals which repeat into fractions and fractions into repeating decimals.	8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.A.1.d	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1
Generate equivalent representations of rational numbers.	8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.A.2	8 M1 Lesson 21: Approximating Values of Roots and $\pi^2$
Estimate the value and compare the size of irrational numbers and approximate their locations on a number line.	8 M1 Lesson 23: Ordering Irrational Numbers

## Expressions, Equations and Inequalities

8.EEI.A Work with radicals and integer exponents.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.A.1	8 M1 Topic B: Properties and Definitions of Exponents
Know and apply the properties of integer exponents to generate equivalent expressions.	
8.EEI.A.2	This standard is fully addressed by the lessons aligned to its subsections.
Investigate concepts of square and cube roots.	
8.EEI.A.2.a	8 M1 Lesson 16: Perfect Squares and Perfect Cubes
Solve equations of the form $x^2 = p$ and	8 M1 Lesson 17: Solving Equations with Squares and Cubes
$x^3 = p$ , where $p$ is a positive rational number.	8 M1 Lesson 20: Square Roots
numper.	8 M1 Lesson 22: Familiar and Not So Familiar Numbers
	8 M1 Lesson 24: Revisiting Equations with Squares and Cubes
8.EEI.A.2.b	8 M1 Lesson 16: Perfect Squares and Perfect Cubes
Evaluate square roots of perfect squares	8 M1 Lesson 17: Solving Equations with Squares and Cubes
less than or equal to 625 and cube roots of perfect cubes less than or equal to 1,000.	8 M1 Lesson 20: Square Roots
	8 M1 Lesson 22: Familiar and Not So Familiar Numbers
	8 M1 Lesson 24: Revisiting Equations with Squares and Cubes

Learning Standards	Aligned Components of <i>Eureka Math<sup>2</sup></i>
8.EEI.A.2.c	8 M1 Lesson 16: Perfect Squares and Perfect Cubes
Recognize that square roots of	8 M1 Lesson 17: Solving Equations with Squares and Cubes
non-perfect squares are irrational.	8 M1 Lesson 20: Square Roots
	8 M1 Lesson 22: Familiar and Not So Familiar Numbers
	8 M1 Lesson 24: Revisiting Equations with Squares and Cubes
8.EEI.A.3	8 M1 Lesson 1: Large and Small Positive Numbers
Express very large and very small	8 M1 Lesson 2: Comparing Large Numbers
quantities in scientific notation and approximate how many times larger one	8 M1 Lesson 3: Time to Be More Precise–Scientific Notation
is than the other.	8 M1 Lesson 7: Making Sense of the Exponent of 0
	8 M1 Lesson 11: Small Positive Numbers in Scientific Notation
8.EEI.A.4	This standard is fully addressed by the lessons aligned to its subsections.
Use scientific notation to solve problems.	
8.EEI.A.4.a	8 M1 Lesson 2: Comparing Large Numbers
Perform operations with numbers	8 M1 Lesson 4: Adding and Subtracting Numbers Written in Scientific Notation
expressed in scientific notation, including problems where both decimal and	8 M1 Lesson 12: Operations with Numbers in Scientific Notation
scientific notation are used.	8 M1 Lesson 13: Applications with Numbers in Scientific Notation
	8 M1 Lesson 14: Choosing Units of Measurement
	8 M1 Lesson 15: Get to the Point

## Aligned Components of *Eureka Math<sup>2</sup>*

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.A.4.b	8 M1 Lesson 2: Comparing Large Numbers
Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities.	8 M1 Lesson 4: Adding and Subtracting Numbers Written in Scientific Notation
	8 M1 Lesson 12: Operations with Numbers in Scientific Notation 8 M1 Lesson 13: Applications with Numbers in Scientific Notation
	8 M1 Lesson 14: Choosing Units of Measurement
	8 M1 Lesson 15: Get to the Point

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## **Expressions, Equations and Inequalities**

8.EEI.B Understand the connections between proportional relationships, lines and linear equations.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>8.EEI.B.5</b> Graph proportional relationships.	This standard is fully addressed by the lessons aligned to its subsections.
<b>8.EEI.B.5.a</b> Interpret the unit rate as the slope of the graph.	8 M4 Lesson 15: Comparing Proportional Relationships 8 M4 Lesson 16: Proportional Relationships and Slope
<b>8.EEI.B.5.b</b> Compare two different proportional relationships.	8 M4 Lesson 15: Comparing Proportional Relationships 8 M4 Lesson 16: Proportional Relationships and Slope
<b>8.EEI.B.6</b> Apply concepts of slope and <i>y</i> -intercept to graphs, equations and proportional relationships.	8 M3 Lesson 17: Similar Triangles on a Line 8 M4 Lesson 12: Solutions to Linear Equations in Two Variables 8 M4 Lesson 13: The Graph of a Linear Equation in Two Variables

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.B.6 continued	8 M4 Lesson 14: Lines with Special Characteristics
	8 M4 Lesson 16: Proportional Relationships and Slope
	8 M4 Lesson 17: Slopes of Rising Lines
	8 M4 Lesson 18: Slopes of Falling Lines
	8 M4 Lesson 19: Using Coordinates to Find Slope
	8 M4 Lesson 20: Slope-Intercept Form of the Equation of a Line
	8 M4 Lesson 21: Slope and Parallel Lines
	8 M4 Lesson 22: Point-Slope Form of the Equation of a Line
	8 M4 Lesson 23: Comparing Equations in Different Forms
	8 M4 Lesson 24: The Patterns, the Pops, and the Pastries
	8 M4 Lesson 25: Lines, Lines, and More Lines
	8 M4 Lesson 26: Linear Equations from Word Problems
	8 M4 Lesson 27: Get to Work
8.EEI.B.6.a	8 M3 Lesson 17: Similar Triangles on a Line
Explain why the slope $(m)$ is the same	8 M4 Lesson 16: Proportional Relationships and Slope
between any two distinct points on a non-vertical line in the Cartesian coordinate plane.	8 M4 Lesson 17: Slopes of Rising Lines
	8 M4 Lesson 18: Slopes of Falling Lines
·	8 M4 Lesson 19: Using Coordinates to Find Slope
	8 M4 Lesson 20: Slope-Intercept Form of the Equation of a Line

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.B.6.b	8 M3 Lesson 17: Similar Triangles on a Line
Derive the equation $y = mx$ for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.	8 M4 Lesson 16: Proportional Relationships and Slope
	8 M4 Lesson 17: Slopes of Rising Lines
	8 M4 Lesson 18: Slopes of Falling Lines
	8 M4 Lesson 19: Using Coordinates to Find Slope
	8 M4 Lesson 20: Slope-Intercept Form of the Equation of a Line

## **Expressions, Equations and Inequalities**

8.EEI.C Analyze and solve linear equations and inequalities and pairs of simultaneous linear equations.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.C.7	8 M4 Lesson 2: Solving Linear Equations
Solve linear equations and inequalities in one variable.	8 M4 Lesson 3: Solving Linear Equations with Rational Coefficients
	8 M4 Lesson 4: Using Linear Equations to Solve Problems
	8 M4 Lesson 10: Using Linear Equations to Solve Real-World Problems
	8 M4 Lesson 11: Planning a Trip
	A1 M1 Lesson 13: Solving Linear Inequalities in One Variable
8.EEI.C.7.a	8 M4 Lesson 7: Linear Equations with More than One Solution
Create and identify linear equations with one solution, infinitely many solutions or no solutions.	8 M4 Lesson 8: Another Possible Number of Solutions
	8 M4 Lesson 9: Writing Linear Equations
	8 M4 Lesson 10: Using Linear Equations to Solve Real-World Problems

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.C.7.b	8 M4 Lesson 1: Equations
Solve linear equations and inequalities	8 M4 Lesson 2: Solving Linear Equations
with rational number coefficients, including equations and inequalities	8 M4 Lesson 3: Solving Linear Equations with Rational Coefficients
whose solutions require expanding	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1
expressions using the distributive	8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
property and combining like terms.	8 M4 Lesson 7: Linear Equations with More than One Solution
	8 M4 Lesson 8: Another Possible Number of Solutions
	8 M4 Lesson 10: Using Linear Equations to Solve Real-World Problems
	8 M4 Lesson 11: Planning a Trip
	A1 M1 Lesson 13: Solving Linear Inequalities in One Variable
8.EEI.C.8	This standard is fully addressed by the lessons aligned to its subsections.
Analyze and solve systems of linear equations.	
8.EEI.C.8.a	8 M5 Topic A: Solving Systems of Linear Equations Graphically
Graph systems of linear equations and	8 M5 Lesson 7: The Substitution Method
recognize the intersection as the solution	8 M5 Lesson 10: Choosing a Solution Method
to the system.	8 M5 Lesson 14: Back to the Coordinate Plane
8.EEI.C.8.b	8 M5 Topic A: Solving Systems of Linear Equations Graphically
Explain why solution(s) to a system	8 M5 Lesson 7: The Substitution Method
of two linear equations in two variables	8 M5 Lesson 10: Choosing a Solution Method
correspond to point(s) of intersection of the graphs.	8 M5 Lesson 14: Back to the Coordinate Plane

Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.EEI.C.8.c	8 M5 Lesson 1: Solving Problems with Equations and Their Graphs
Explain why systems of linear equations can have one solution, no solution or infinitely many solutions.	8 M5 Topic C: Writing and Solving Systems of Linear Equations
8.EEI.C.8.d	8 M5 Lesson 1: Solving Problems with Equations and Their Graphs
Solve systems of two linear equations.	8 M5 Lesson 3: Identifying Solutions
	8 M5 Lesson 4: More Than One Solution
	8 M5 Lesson 5: Estimating Solutions
	8 M5 Topic B: Solving Systems of Equations Algebraically
	8 M5 Topic C: Writing and Solving Systems of Linear Equations
	A1 M2 Lesson 9: A New Way to Solve Systems
	A1 M2 Lesson 10: The Elimination Method

## **Geometry and Measurement**

8.GM.A Understand congruence and similarity using physical models, transparencies or geometry software.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.GM.A.1	This standard is fully addressed by the lessons aligned to its subsections.
Verify experimentally the congruence properties of rigid transformations.	
8.GM.A.1.a	8 M2 Lesson 1: Motions of the Plane
Verify that angle measure, betweenness, collinearity and distance are preserved under rigid transformations.	8 M2 Lesson 2: Translations 8 M2 Lesson 3: Reflections

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.GM.A.1.a continued	8 M2 Lesson 5: Rotations
	8 M2 Lesson 7: Working Backward
	8 M2 Lesson 8: Sequencing the Rigid Motions
8.GM.A.1.b	8 M2 Lesson 5: Rotations
Investigate if orientation is preserved under rigid transformations.	
8.GM.A.2	This standard is fully addressed by the lessons aligned to its subsection.
Understand that two-dimensional figures are congruent if a series of rigid transformations can be performed to map the pre-image to the image.	
8.GM.A.2.a	8 M2 Topic B: Rigid Motions and Congruent Figures
Describe a possible sequence of rigid transformations between two congruent figures.	8 M2 Lesson 12: Lines Cut by a Transversal
8.GM.A.3	8 M2 Lesson 4: Translations and Reflections on the Coordinate Plane
Describe the effect of dilations,	8 M2 Lesson 6: Rotations on the Coordinate Plane
translations, rotations and reflections on two-dimensional figures using	8 M2 Lesson 9: Ordering Sequences of Rigid Motions
coordinates.	8 M3 Topic A: Dilations
	8 M3 Topic B: Properties of Dilations
	8 M3 Lesson 9: Describing Dilations
	8 M3 Lesson 10: Sequencing Transformations
	8 M3 Lesson 16: Similar Right Triangles

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>8.GM.A.4</b> Understand that two-dimensional figures are similar if a series of transformations (rotations, reflections, translations and dilations) can be performed to map the pre-image to the image.	This standard is fully addressed by the lessons aligned to its subsection.
<b>8.GM.A.4.a</b> Describe a possible sequence of transformations between two similar figures.	8 M3 Lesson 11: Similar Figures 8 M3 Lesson 12: Exploring Angles in Similar Triangles 8 M3 Lesson 13: Similar Triangles 8 M3 Lesson 17: Similar Triangles on a Line
<b>8.GM.A.5</b> Explore angle relationships and establish informal arguments.	This standard is fully addressed by the lessons aligned to its subsections.
<b>8.GM.A.5.a</b> Derive the sum of the interior angles of a triangle.	<ul> <li>8 M2 Topic C: Angle Relationships</li> <li>8 M3 Lesson 12: Exploring Angles in Similar Triangles</li> <li>8 M3 Lesson 13: Similar Triangles</li> <li>8 M3 Lesson 14: Using Similar Figures to Find Unknown Side Lengths</li> <li>8 M3 Lesson 15: Applications of Similar Figures</li> <li>8 M3 Lesson 16: Similar Right Triangles</li> </ul>
<b>8.GM.A.5.b</b> Explore the relationship between the interior and exterior angles of a triangle.	8 M2 Topic C: Angle Relationships 8 M3 Lesson 12: Exploring Angles in Similar Triangles 8 M3 Lesson 13: Similar Triangles 8 M3 Lesson 14: Using Similar Figures to Find Unknown Side Lengths

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Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.GM.A.5.b continued	8 M3 Lesson 15: Applications of Similar Figures
	8 M3 Lesson 16: Similar Right Triangles
8.GM.A.5.c	8 M2 Topic C: Angle Relationships
Construct and explore the angles	8 M3 Lesson 12: Exploring Angles in Similar Triangles
created when parallel lines are cut by a transversal.	8 M3 Lesson 13: Similar Triangles
by a transversal.	8 M3 Lesson 14: Using Similar Figures to Find Unknown Side Lengths
	8 M3 Lesson 15: Applications of Similar Figures
	8 M3 Lesson 16: Similar Right Triangles
8.GM.A.5.d	8 M3 Lesson 11: Similar Figures
Use the properties of similar figures	8 M3 Lesson 12: Exploring Angles in Similar Triangles
to solve problems.	8 M3 Lesson 13: Similar Triangles
	8 M3 Lesson 17: Similar Triangles on a Line

## **Geometry and Measurement**

8.GM.B Understand and apply the Pythagorean Theorem.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.GM.B.6	8 M2 Lesson 17: Proving the Pythagorean Theorem
Use models to demonstrate a proof of the Pythagorean Theorem and its converse.	8 M2 Lesson 18: Proving the Converse of the Pythagorean Theorem 8 M2 Lesson 19: Using the Pythagorean Theorem and Its Converse

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.GM.B.7	8 M1 Lesson 18: The Pythagorean Theorem
Use the Pythagorean Theorem to	8 M1 Lesson 19: Using the Pythagorean Theorem
determine unknown side lengths in	8 M1 Lesson 20: Square Roots
right triangles in problems in two- and three-dimensional contexts.	8 M2 Lesson 19: Using the Pythagorean Theorem and Its Converse
	8 M2 Lesson 21: Applying the Pythagorean Theorem
	8 M2 Lesson 22: On the Right Path
	8 M3 Lesson 16: Similar Right Triangles
8.GM.B.8	8 M2 Lesson 20: Distance in the Coordinate Plane
Use the Pythagorean Theorem to find the distance between points in a Cartesian coordinate system.	8 M2 Lesson 22: On the Right Path

## **Geometry and Measurement**

8.GM.C Solve problems involving volume of cones, pyramids and spheres.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.GM.C.9	This standard is fully addressed by the lessons aligned to its subsections.
Solve problems involving surface area and volume.	
8.GM.C.9.a	7 M4 Lesson 20: Surface Area of Right Pyramids
Understand the concept of surface area and find surface area of pyramids.	

Learning Standards	Alighed Components of Eureka Math
8.GM.C.9.b	8 M6 Topic E: Volume
Understand the concept of volume and find the volume of pyramids, cones and spheres.	

### Missouri Mathematics Learning Standards Aligned Components of *Eureka Math*<sup>2</sup>

## Data Analysis, Statistics and Probability

### 8.DSP.A Investigate patterns of association in bivariate data.

Missouri Mathematics Learning Standards	Aligned Components of Eureka Math <sup>2</sup>
8.DSP.A.1	8 M6 Lesson 11: Scatter Plots
Construct and interpret scatter plots of bivariate measurement data to investigate patterns of association between two quantities.	8 M6 Lesson 12: Patterns in Scatter Plots
8.DSP.A.2	8 M6 Lesson 13: Informally Fitting a Line to Data
Generate and use a trend line for	8 M6 Lesson 15: Linear Models
bivariate data, and informally assess	8 M6 Lesson 16: Using the Investigative Process
the fit of the line.	8 M6 Lesson 17: Analyzing the Model
8.DSP.A.3	8 M6 Lesson 6: Linear Functions and Rate of Change
Interpret the parameters of a linear model of bivariate measurement data to solve problems.	8 M6 Lesson 7: Interpreting Rate of Change and Initial Value
	8 M6 Lesson 14: Determining an Equation of a Line Fit to Data
	8 M6 Lesson 15: Linear Models
	8 M6 Lesson 16: Using the Investigative Process
	8 M6 Lesson 17: Analyzing the Model

Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.DSP.A.4	This standard is fully addressed by the lessons aligned to its subsections.
Understand the patterns of association in bivariate categorical data displayed in a two-way table.	
8.DSP.A.4.a	8 M6 Topic D: Bivariate Categorical Data
Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects.	
8.DSP.A.4.b	8 M6 Topic D: Bivariate Categorical Data
Use relative frequencies calculated for rows or columns to describe possible association between the two variables.	

## **Functions**

8.F.A Define, evaluate and compare functions.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.F.A.1	This standard is fully addressed by the lessons aligned to its subsections.
Explore the concept of functions. (The use of function notation is not required.)	

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.F.A.1.a	8 M6 Lesson 1: Motion and Speed
Understand that a function assigns	8 M6 Lesson 2: Definition of a Function
to each input exactly one output.	8 M6 Lesson 4: More Examples of Functions
	8 M6 Lesson 5: Graphs of Functions and Equations
8.F.A.1.b	8 M6 Lesson 1: Motion and Speed
Determine if a relation is a function.	8 M6 Lesson 2: Definition of a Function
	8 M6 Lesson 4: More Examples of Functions
	8 M6 Lesson 5: Graphs of Functions and Equations
8.F.A.1.c	8 M6 Lesson 1: Motion and Speed
Graph a function.	8 M6 Lesson 2: Definition of a Function
	8 M6 Lesson 4: More Examples of Functions
	8 M6 Lesson 5: Graphs of Functions and Equations
8.F.A.2	8 M6 Lesson 7: Interpreting Rate of Change and Initial Value
Compare characteristics of two functions each represented in a different way.	8 M6 Lesson 8: Comparing Functions
8.F.A.3	This standard is fully addressed by the lessons aligned to its subsections.
Investigate the differences between linear and nonlinear functions.	

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.F.A.3.a	8 M6 Lesson 3: Linear Functions and Proportionality
Interpret the equation $y = mx + b$	8 M6 Lesson 6: Linear Functions and Rate of Change
as defining a linear function, whose parameters are the slope ( <i>m</i> ) and the <i>y</i> -intercept ( <i>b</i> ).	8 M6 Lesson 10: Graphs of Nonlinear Functions
8.F.A.3.b	8 M6 Lesson 3: Linear Functions and Proportionality
Recognize that the graph of a linear function has a constant rate of change.	8 M6 Lesson 6: Linear Functions and Rate of Change
	8 M6 Lesson 10: Graphs of Nonlinear Functions
8.F.A.3.c	8 M6 Lesson 3: Linear Functions and Proportionality
Give examples of nonlinear functions.	8 M6 Lesson 6: Linear Functions and Rate of Change
	8 M6 Lesson 10: Graphs of Nonlinear Functions

## **Functions**

8.F.B Use functions to model relationships between quantities.

Missouri Mathematics Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>8.F.B.4</b> Use functions to model linear relationships between quantities.	This standard is fully addressed by the lessons aligned to its subsections.
<b>8.F.B.4.a</b> Explain the parameters of a linear function based on the context of a problem.	8 M6 Lesson 6: Linear Functions and Rate of Change 8 M6 Lesson 7: Interpreting Rate of Change and Initial Value 8 M6 Lesson 25: Applications of Volume

Learning Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
8.F.B.4.b	8 M6 Lesson 6: Linear Functions and Rate of Change
Determine the parameters of a linear function.	8 M6 Lesson 7: Interpreting Rate of Change and Initial Value 8 M6 Lesson 25: Applications of Volume
8.F.B.4.c	8 M6 Lesson 6: Linear Functions and Rate of Change
Determine the <i>x</i> -intercept of a linear function.	8 M6 Lesson 7: Interpreting Rate of Change and Initial Value 8 M6 Lesson 25: Applications of Volume
8.F.B.5	8 M6 Lesson 9: Increasing and Decreasing Functions
Describe the functional relationship between two quantities from a graph or a verbal description.	8 M6 Lesson 10: Graphs of Nonlinear Functions