Grade 8 | South Carolina College and Career Ready Standards for Mathematics Correlation to *Eureka Math²™*

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 Math²™*, 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 Math²* 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 Math²* 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 *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.

The Number System

8.NS The Number System

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.NS.1 Explore the real number system and its appropriate usage in real-world situations.	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1 8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.1.a Recognize the differences between rational and irrational numbers.	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1 8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.1.b Understand that all real numbers have a decimal expansion.	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1 8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2
8.NS.1.c Model the hierarchy of the real number system, including natural, whole, integer, rational, and irrational numbers.	*Supplemental material is necessary to address this standard.*
8.NS.2 Estimate and compare the value of irrational numbers by plotting them on a number line.	8 M1 Lesson 21: Approximating Values of Roots and π^2 8 M1 Lesson 23: Ordering Irrational Numbers

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.NS.3 Extend prior knowledge to translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Include the conversion of repeating decimal numbers to fractions.	8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1 8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2

Functions

8.F Functions

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.F.1 Explore the concept of functions.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.F.1.a Understand that a function assigns to each input exactly one output.	8 M6 Topic A: Functions
8.F.1.b Relate inputs (x-values or domain) and outputs (y-values or range) to independent and dependent variables.	8 M6 Topic A: Functions

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.F.1.c Translate among the multiple representations of a function, including mappings, tables, graphs, equations, and verbal descriptions.	8 M6 Topic A: Functions
8.F.1.d Determine if a relation is a function using multiple representations, including mappings, tables, graphs, equations, and verbal descriptions.	8 M6 Topic A: Functions
8.F.1.e Graph a function from a table of values. Understand that the graph and table both represent a set of ordered pairs of that function.	8 M6 Topic A: Functions
8.F.2 Compare multiple representations of two functions, including mappings, tables, graphs, equations, and verbal descriptions, in order to draw conclusions.	8 M6 Lesson 7: Interpreting Rate of Change and Initial Value 8 M6 Lesson 8: Comparing Functions
8.F.3 Investigate the differences between linear and nonlinear functions using multiple representations (i.e., tables, graphs, equations, and verbal descriptions).	*This standard is fully addressed by the lessons aligned to its subsections.*

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.F.3.a Define an equation in slope-intercept form ($y = mx + b$) as being a linear function.	8 M6 Lesson 3: Linear Functions and Proportionality 8 M6 Lesson 6: Linear Functions and Rate of Change 8 M6 Lesson 10: Graphs of Nonlinear Functions
8.F.3.b Recognize that the graph of a linear function has a constant rate of change.	8 M6 Lesson 3: Linear Functions and Proportionality 8 M6 Lesson 6: Linear Functions and Rate of Change 8 M6 Lesson 10: Graphs of Nonlinear Functions
8.F.3.c Provide examples of nonlinear functions.	8 M6 Lesson 3: Linear Functions and Proportionality 8 M6 Lesson 6: Linear Functions and Rate of Change 8 M6 Lesson 10: Graphs of Nonlinear Functions
8.F.4 Apply the concepts of linear functions to real-world and mathematical situations.	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
8.F.4.a Understand that the slope is the constant rate of change and the y-intercept is the point where $x = 0$.	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
8.F.4.b Determine the slope and the y-intercept of a linear function given multiple representations, including two points, tables, graphs, equations, and verbal descriptions.	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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.F.4.c Construct a function in slope-intercept form that models a linear relationship between two quantities.	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
8.F.4.d Interpret the meaning of the slope and the y-intercept of a linear function in the context of the situation.	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
8.F.4.e Explore the relationship between linear functions and arithmetic sequences.	*Supplemental material is necessary to address this standard.*
8.F.5 Apply the concepts of linear and nonlinear functions to graphs in real-world and mathematical situations.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.F.5.a Analyze and describe attributes of graphs of functions (e.g., constant, increasing/decreasing, linear/nonlinear, maximum/minimum, discrete/continuous).	8 M6 Lesson 9: Increasing and Decreasing Functions 8 M6 Lesson 10: Graphs of Nonlinear Functions
8.F.5.b Sketch the graph of a function from a verbal description.	8 M6 Lesson 9: Increasing and Decreasing Functions 8 M6 Lesson 10: Graphs of Nonlinear Functions

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.F.5.c Write a verbal description from the graph of a function with and without scales.	8 M6 Lesson 9: Increasing and Decreasing Functions 8 M6 Lesson 10: Graphs of Nonlinear Functions

Expressions, Equations, and Inequalities

8.EEI Expressions, Equations, and Inequalities

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.1 Understand and apply the laws of exponents (i.e., product rule, quotient rule, power to a power, product to a power, quotient to a power, zero power property, negative exponents) to simplify numerical expressions that include integer exponents.	8 M1 Topic B: Properties and Definitions of Exponents
8.EEI.2 Investigate concepts of square and cube roots.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.EEI.2.a Find the exact and approximate solutions to equations of the form $x^2 = p$ and $x^3 = p$ where p is a positive rational number.	8 M1 Lesson 16: Perfect Squares and Perfect Cubes 8 M1 Lesson 17: Solving Equations with Squares and Cubes 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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.2.b Evaluate square roots of perfect squares.	8 M1 Lesson 16: Perfect Squares and Perfect Cubes 8 M1 Lesson 17: Solving Equations with Squares and Cubes 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.2.c Evaluate cube roots of perfect cubes.	8 M1 Lesson 21: Approximating Values of Roots and π^2 8 M1 Lesson 23: Ordering Irrational Numbers
8.EEI.2.d Recognize that square roots of non-perfect squares are irrational.	8 M1 Lesson 16: Perfect Squares and Perfect Cubes 8 M1 Lesson 17: Solving Equations with Squares and Cubes 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.3 Explore the relationship between quantities in decimal and scientific notation.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.EEI.3.a Express very large and very small quantities in scientific notation in the form $a \times 10^b = p$ where $1 \leq a < 10$ and b is an integer.	8 M1 Lesson 1: Large and Small Positive Numbers 8 M1 Lesson 2: Comparing Large Numbers 8 M1 Lesson 3: Time to Be More Precise—Scientific Notation 8 M1 Lesson 7: Making Sense of the Exponent of 0 8 M1 Lesson 11: Small Positive Numbers in Scientific Notation

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.3.b Translate between decimal notation and scientific notation.	8 M1 Lesson 1: Large and Small Positive Numbers 8 M1 Lesson 2: Comparing Large Numbers 8 M1 Lesson 3: Time to Be More Precise—Scientific Notation 8 M1 Lesson 7: Making Sense of the Exponent of 0 8 M1 Lesson 11: Small Positive Numbers in Scientific Notation
8.EEI.3.c Estimate and compare the relative size of two quantities in scientific notation.	8 M1 Lesson 1: Large and Small Positive Numbers 8 M1 Lesson 2: Comparing Large Numbers 8 M1 Lesson 3: Time to Be More Precise—Scientific Notation 8 M1 Lesson 7: Making Sense of the Exponent of 0 8 M1 Lesson 11: Small Positive Numbers in Scientific Notation
8.EEI.4 Apply the concepts of decimal and scientific notation to solve real-world and mathematical problems.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.EEI.4.a Multiply and divide numbers expressed in both decimal and scientific notation.	8 M1 Lesson 2: Comparing Large Numbers 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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.4.b Select appropriate units of measure when representing answers in scientific notation.	8 M1 Lesson 2: Comparing Large Numbers 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
8.EEI.4.c Translate how different technological devices display numbers in scientific notation.	8 M1 Lesson 2: Comparing Large Numbers 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
8.EEI.5 Apply concepts of proportional relationships to real-world and mathematical situations.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.EEI.5.a Graph proportional relationships.	8 M4 Lesson 15: Comparing Proportional Relationships 8 M4 Lesson 16: Proportional Relationships and Slope
8.EEI.5.b Interpret unit rate as the slope of the graph.	8 M4 Lesson 15: Comparing Proportional Relationships 8 M4 Lesson 16: Proportional Relationships and Slope

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.5.c Compare two different proportional relationships given multiple representations, including tables, graphs, equations, diagrams, and verbal descriptions.	8 M4 Lesson 15: Comparing Proportional Relationships 8 M4 Lesson 16: Proportional Relationships and Slope
8.EEI.6 Apply concepts of slope and y-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 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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.6.a Explain why the slope, m, is the same between any two distinct points on a non-vertical line using similar triangles.	8 M3 Lesson 17: Similar Triangles on a Line 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.EEI.6.b Derive the slope-intercept form ($y = mx + b$) for a non-vertical line.	8 M3 Lesson 17: Similar Triangles on a Line 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 23: Comparing Equations in Different Forms 8 M4 Lesson 24: The Patterns, the Pops, and the Pastries

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.6.c Relate equations for proportional relationships ($y = kx$) with the slope-intercept form ($y = mx + b$) where $b = 0$.	8 M3 Lesson 17: Similar Triangles on a Line 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.EEI.7 Extend concepts of linear equations and inequalities in one variable to more complex multi-step equations and inequalities in real-world and mathematical situations.	8 M4 Lesson 2: Solving Linear Equations 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 8: Solution Sets for Equations and Inequalities in One Variable A1 M1 Lesson 13: Solving Linear Inequalities in One Variable
8.EEI.7.a Solve linear equations and inequalities with rational number coefficients that include the use of the distributive property, combining like terms, and variables on both sides.	8 M4 Lesson 1: Equations 8 M4 Lesson 2: Solving Linear Equations 8 M4 Lesson 3: Solving Linear Equations with Rational Coefficients 8 M4 Lesson 5: An Interesting Application of Linear Equations, Part 1 8 M4 Lesson 6: An Interesting Application of Linear Equations, Part 2 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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.7.a *continued*	8 M4 Lesson 11: Planning a Trip A1 M1 Lesson 8: Solution Sets for Equations and Inequalities in One Variable A1 M1 Lesson 13: Solving Linear Inequalities in One Variable
8.EEI.7.b Recognize the three types of solutions to linear equations: one solution ($x = a$), infinitely many solutions ($a = a$), or no solutions ($a = b$).	8 M4 Lesson 7: Linear Equations with More than One Solution 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
8.EEI.7.c Generate linear equations with the three types of solutions.	8 M4 Lesson 7: Linear Equations with More than One Solution 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
8.EEI.7.d Justify why linear equations have a specific type of solution.	8 M4 Lesson 7: Linear Equations with More than One Solution 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
8.EEI.8 Investigate and solve real-world and mathematical problems involving systems of linear equations in two variables with integer coefficients and solutions.	*This standard is fully addressed by the lessons aligned to its subsections.*

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.EEI.8.a Graph systems of linear equations and estimate their point of intersection.	8 M5 Topic A: Solving Systems of Linear Equations Graphically 8 M5 Lesson 7: The Substitution Method 8 M5 Lesson 10: Choosing a Solution Method 8 M5 Lesson 14: Back to the Coordinate Plane
8.EEI.8.b Understand and verify that a solution to a system of linear equations is represented on a graph as the point of intersection of the two lines.	8 M5 Topic A: Solving Systems of Linear Equations Graphically 8 M5 Lesson 7: The Substitution Method 8 M5 Lesson 10: Choosing a Solution Method 8 M5 Lesson 14: Back to the Coordinate Plane
8.EEI.8.c Solve systems of linear equations algebraically, including methods of substitution and elimination, or through inspection.	8 M5 Lesson 1: Solving Problems with Equations and Their Graphs 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 A1 M2 Lesson 11: Applications of Systems of Equations
8.EEI.8.d Understand that systems of linear equations can have one solution, no solution, or infinitely many solutions.	8 M5 Topic A: Solving Systems of Linear Equations Graphically

Geometry and Measurement

8.GM Geometry and Measurement

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.1 Investigate the properties of rigid transformations (rotations, reflections, translations) using a variety of tools (e.g., grid paper, reflective devices, graphing paper, technology).	*This standard is fully addressed by the lessons aligned to its subsections.*
8.GM.1.a Verify that lines are mapped to lines, including parallel lines.	8 M2 Lesson 1: Motions of the Plane 8 M2 Lesson 2: Translations 8 M2 Lesson 3: Reflections 8 M2 Lesson 5: Rotations 8 M2 Lesson 7: Working Backward 8 M2 Lesson 8: Sequencing the Rigid Motions
8.GM.1.b Verify that corresponding angles are congruent.	8 M2 Lesson 1: Motions of the Plane 8 M2 Lesson 2: Translations 8 M2 Lesson 3: Reflections 8 M2 Lesson 5: Rotations 8 M2 Lesson 7: Working Backward 8 M2 Lesson 8: Sequencing the Rigid Motions
8.GM.1.c Verify that corresponding line segments are congruent.	8 M2 Lesson 1: Motions of the Plane 8 M2 Lesson 2: Translations 8 M2 Lesson 3: Reflections

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.1.c *continued*	8 M2 Lesson 5: Rotations 8 M2 Lesson 7: Working Backward 8 M2 Lesson 8: Sequencing the Rigid Motions
8.GM.2 Apply the properties of rigid transformations (rotations, reflections, translations).	*This standard is fully addressed by the lessons aligned to its subsections.*
8.GM.2.a Rotate geometric figures 90, 180, and 270 degrees, both clockwise and counterclockwise, about the origin.	8 M2 Topic A: Rigid Motions and Their Properties 8 M2 Topic B: Rigid Motions and Congruent Figures 8 M2 Lesson 12: Lines Cut by a Transversal 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
8.GM.2.b Reflect geometric figures with respect to the x-axis and/or y-axis.	8 M2 Lesson 4: Translations and Reflections on the Coordinate Plane 8 M2 Lesson 6: Rotations on the Coordinate Plane 8 M2 Topic B: Rigid Motions and Congruent Figures 8 M2 Lesson 12: Lines Cut by a Transversal 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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.2.c Translate geometric figures vertically and/or horizontally.	8 M2 Topic A: Rigid Motions and Their Properties 8 M2 Topic B: Rigid Motions and Congruent Figures 8 M2 Lesson 12: Lines Cut by a Transversal 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
8.GM.2.d Recognize that two-dimensional figures are only congruent if a series of rigid transformations can be performed to map the pre-image to the image.	8 M2 Topic B: Rigid Motions and Congruent Figures 8 M2 Lesson 12: Lines Cut by a Transversal
8.GM.2.e Given two congruent figures, describe the series of rigid transformations that justifies this congruence.	8 M2 Topic B: Rigid Motions and Congruent Figures 8 M2 Lesson 12: Lines Cut by a Transversal
8.GM.3 Investigate the properties of transformations (rotations, reflections, translations, dilations) using a variety of tools (e.g., grid paper, reflective devices, graphing paper, dynamic software).	*This standard is fully addressed by the lessons aligned to its subsections.*

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.3.a Use coordinate geometry to describe the effect of transformations on two-dimensional figures.	8 M2 Lesson 4: Translations and Reflections on the Coordinate Plane 8 M2 Lesson 6: Rotations on the Coordinate Plane 8 M2 Lesson 9: Ordering Sequences of Rigid Motions 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
8.GM.3.b Relate scale drawings to dilations of geometric figures.	8 M3 Lesson 1: Exploring Dilations 8 M3 Lesson 2: Enlargements
8.GM.4 Apply the properties of transformations (rotations, reflections, translations, dilations).	8 M2 Lesson 4: Translations and Reflections on the Coordinate Plane 8 M2 Lesson 6: Rotations on the Coordinate Plane 8 M2 Lesson 9: Ordering Sequences of Rigid Motions 8 M3 Topic A: Dilations 8 M3 Topic B: Properties of Dilations 8 M3 Topic C: Similar Figures 8 M3 Lesson 16: Similar Right Triangles 8 M3 Lesson 17: Similar Triangles on a Line

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.4.a Dilate geometric figures using scale factors that are positive rational numbers.	8 M3 Lesson 9: Describing Dilations 8 M3 Lesson 10: Sequencing Transformations 8 M3 Lesson 11: Similar Figures 8 M3 Lesson 12: Exploring Angles in Similar Triangles 8 M3 Lesson 13: Similar Triangles 8 M3 Lesson 16: Similar Right Triangles 8 M3 Lesson 17: Similar Triangles on a Line
8.GM.4.b Recognize that two-dimensional figures are only similar if a series of transformations can be performed to map the pre-image to the image.	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
8.GM.4.c Given two similar figures, describe the series of transformations that justifies this similarity.	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
8.GM.4.d Use proportional reasoning to find the missing side lengths of two similar figures.	8 M3 Lesson 11: Similar Figures 8 M3 Topic D: Applications of Similar Figures
8.GM.5 Extend and apply previous knowledge of angles to properties of triangles, similar figures, and parallel lines cut by a transversal.	*This standard is fully addressed by the lessons aligned to its subsections.*

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.5.a Discover that the sum of the three angles in a triangle is 180 degrees.	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 8 M3 Lesson 15: Applications of Similar Figures 8 M3 Lesson 16: Similar Right Triangles
8.GM.5.b Discover and use the relationship between 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 8 M3 Lesson 15: Applications of Similar Figures 8 M3 Lesson 16: Similar Right Triangles
8.GM.5.c Identify congruent and supplementary pairs of angles when two parallel lines are cut by a transversal.	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 8 M3 Lesson 15: Applications of Similar Figures 8 M3 Lesson 16: Similar Right Triangles

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.5.d Recognize that two similar figures have congruent corresponding angles.	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 8 M3 Lesson 15: Applications of Similar Figures 8 M3 Lesson 16: Similar Right Triangles
8.GM.6 Use models to demonstrate a proof of the Pythagorean Theorem and its converse.	8 M2 Lesson 17: Proving the Pythagorean Theorem 8 M2 Lesson 18: Proving the Converse of the Pythagorean Theorem 8 M2 Lesson 19: Using the Pythagorean Theorem and Its Converse
8.GM.7 Apply the Pythagorean Theorem to model and solve real-world and mathematical problems in two and three dimensions involving right triangles.	8 M1 Lesson 18: The Pythagorean Theorem 8 M1 Lesson 19: Using the Pythagorean Theorem 8 M1 Lesson 20: Square Roots 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.8 Find the distance between any two points in the coordinate plane using the Pythagorean Theorem.	8 M2 Lesson 20: Distance in the Coordinate Plane 8 M2 Lesson 22: On the Right Path

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.GM.9 Solve real-world and mathematical problems involving volumes of cones, cylinders, and spheres and the surface area of cylinders.	7 M4 Lesson 19: Surface Area of Cylinders 8 M6 Topic E: Volume

Data Analysis, Statistics, and Probability

8.DSP Data Analysis, Statistics, and Probability

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.DSP.1 Investigate bivariate data.	*This standard is fully addressed by the lessons aligned to its subsections.*
8.DSP.1.a Collect bivariate data.	8 M6 Lesson 6: Linear Functions and Rate of Change 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
8.DSP.1.b Graph the bivariate data on a scatter plot.	8 M6 Lesson 11: Scatter Plots 8 M6 Lesson 12: Patterns in Scatter Plots

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.DSP.1.c Describe patterns observed on a scatter plot, including clustering, outliers, and association (positive, negative, no correlation, linear, nonlinear).	8 M6 Lesson 11: Scatter Plots 8 M6 Lesson 12: Patterns in Scatter Plots
8.DSP.2 Draw an approximate line of best fit on a scatter plot that appears to have a linear association and informally assess the fit of the line to the data points.	8 M6 Lesson 13: Informally Fitting a Line to Data 8 M6 Lesson 15: Linear Models 8 M6 Lesson 16: Using the Investigative Process 8 M6 Lesson 17: Analyzing the Model
8.DSP.3 Apply concepts of an approximate line of best fit in real-world situations.	8 M6 Lesson 6: Linear Functions and Rate of Change 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
8.DSP.3.a Find an approximate equation for the line of best fit using two appropriate data points.	8 M6 Lesson 6: Linear Functions and Rate of Change 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

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.DSP.3.b Interpret the slope and intercept.	8 M6 Lesson 6: Linear Functions and Rate of Change 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
8.DSP.3.c Solve problems using the equation.	8 M6 Lesson 6: Linear Functions and Rate of Change 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
8.DSP.4 Investigate bivariate categorical data in two-way tables.	8 M6 Topic D: Bivariate Categorical Data
8.DSP.4.a Organize bivariate categorical data in a two-way table.	8 M6 Topic D: Bivariate Categorical Data
8.DSP.4.b Interpret data in two-way tables using relative frequencies.	8 M6 Topic D: Bivariate Categorical Data

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
8.DSP.4.c Explore patterns of possible association between the two categorical variables.	8 M6 Topic D: Bivariate Categorical Data
8.DSP.5 Organize data in matrices with rational numbers and apply to real-world and mathematical situations.	*Supplemental material is necessary to address this standard.*
8.DSP.5.a Understand that a matrix is a way to organize data.	*Supplemental material is necessary to address this standard.*
8.DSP.5.b Recognize that a $m \times n$ matrix has m rows and n columns.	*Supplemental material is necessary to address this standard.*
8.DSP.5.c Add and subtract matrices of the same size.	*Supplemental material is necessary to address this standard.*
8.DSP.5.d Multiply a matrix by a scalar.	*Supplemental material is necessary to address this standard.*