Grade 7–8 | South Carolina College- and Career-Ready Mathematics Standards 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.

Mathematical Process Standards	Aligned Components of *Eureka Math²*
MPS.PS.1 Make sense of problems and persevere in solving them strategically.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MPS.RC.1 Explain ideas using precise and contextually appropriate mathematical language, tools, and models.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MPS.C.1 Demonstrate a deep and flexible conceptual understanding of mathematical ideas, operations, and relationships while making real-world connections.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MPS.AJ.1 Use critical thinking skills to reason both abstractly and quantitatively.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.
MPS.SP.1 Identify and apply regularity in repeated reasoning to make generalizations.	Lessons in every module engage students in mathematical processes. These are indicated in margin notes included with every lesson.

Data, Probability, and Statistical Reasoning

78.DPSR.1 Analyze data sets to identify their statistical elements.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.DPSR.1.1 Create stem-and-leaf plots to represent numerical data sets in mathematical and real-world situations.	*Supplemental material is necessary to address this standard.*
7.DPSR.1.2 Use the shape of the graph to select the measure of center (*mean*, *median*, or *mode*) that best describes the data set.	6 M6 Lesson 20: Choosing a Measure of Center A1 M1 Lesson 19: Describing the Center of a Distribution *Supplemental material is necessary to address mode.*
7.DPSR.1.3 Calculate and interpret the measures of center (*mean*, *median*, *mode*) and spread (*mean absolute deviation*, *interquartile range*, *range*) in mathematical and real-world situations.	6 M6 Lesson 7: Using the Mean to Describe the Center 6 M6 Lesson 8: The Mean as a Balance Point 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 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 *Supplemental material is necessary to address mode.*

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.DPSR.1.4 Create histograms to represent data sets and interpret histograms to answer questions or draw conclusions about data sets.	6 M6 Lesson 4: Creating a Histogram 6 M6 Lesson 5: Comparing Data Displays 6 M6 Lesson 6: Selecting a Data Display 6 M6 Lesson 19: Comparing Data Distributions 6 M6 Lesson 22: Presenting Statistical Projects

Data, Probability, and Statistical Reasoning

78.DPSR.2 Calculate and interpret probability.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.DPSR.2.1 Identify the sample space for a simple event.	7–8 M6 Lesson 2: Outcomes of Chance Experiments 7–8 M6 Lesson 3: Theoretical Probability
7.DPSR.2.2 Calculate and interpret the theoretical probability of a simple random event.	7–8 M6 Lesson 3: Theoretical Probability 7–8 M6 Lesson 6: The Law of Large Numbers
7.DPSR.2.3 Calculate and interpret the experimental probability of a random event related to a simple experiment.	7–8 M6 Lesson 1: What Is Probability? 7–8 M6 Lesson 2: Outcomes of Chance Experiments 7–8 M6 Lesson 5: Outcomes That Are Not Equally Likely 7–8 M6 Lesson 7: Picking Blue

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.DPSR.2.4 Compare and contrast the experimental and theoretical probabilities for a simple experiment.	7–8 M6 Lesson 5: Outcomes That Are Not Equally Likely 7–8 M6 Lesson 6: The Law of Large Numbers 7–8 M6 Lesson 7: Picking Blue

Measurement, Geometry, and Spatial Reasoning

78.MGSR.1 Determine the measurements of geometric figures.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.MGSR.1.1 Identify the parts of a circle. Limit parts to *center*, *radius*, *diameter*, and *chord*.	7–8 M3 Lesson 3: Exploring and Constructing Circles *Supplemental material is necessary to address identifying chords of a circle other than the diameter.*
7.MGSR.1.2 Describe the relationship between the *radius*, *diameter*, and *circumference* of a circle.	7–8 M3 Lesson 3: Exploring and Constructing Circles
7.MGSR.1.3 Solve mathematical and real-world situations involving circumference or area of circles.	7–8 M3 Lesson 3: Exploring and Constructing Circles 7–8 M3 Lesson 4: Area and Circumference of a Circle 7–8 M3 Lesson 5: Area and Circumference of Circular Regions 7–8 M3 Lesson 6: Watering a Lawn

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.MGSR.1.4 Determine if three given side lengths can form a triangle using the *Triangle Inequality Theorem*.	7–8 M3 Lesson 1: Sketching and Constructing Geometric Figures
7.MGSR.1.5 In mathematical and real-world situations, find the volume of right prisms and right pyramids having triangular or quadrilateral bases.	7–8 M5 Lesson 16: Volume of Prisms 7–8 M5 Lesson 18: Designing a Fish Tank 7–8 M5 Lesson 19: Volumes of Pyramids and Cones 7–8 M5 Lesson 21: Volume of Composite Solids
7.MGSR.1.6 In mathematical and real-world situations, find the surface area of right prisms and right pyramids having triangular or quadrilateral bases.	7–8 M5 Lesson 11: Surface Areas of Prisms and Pyramids 7–8 M5 Lesson 18: Designing a Fish Tank
8.MGSR.1.1 Given the geometric formulas, find the volume of cones, cylinders, and spheres in mathematical and real-world situations.	7–8 M5 Topic D: Volume

Measurement, Geometry, and Spatial Reasoning

78.MGSR.2 Determine angle and/or side relationships.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.MGSR.2.1 Determine the measure of the third angle given the measure of the other two angles of a triangle using the *Triangle Sum Theorem*.	7–8 M3 Lesson 13: Angle Sum of a Triangle
7.MGSR.2.2 Solve mathematical and real-world situations involving dimensions and areas of geometric figures including scale drawings and scale factors.	7–8 M3 Topic D: Scale Drawings and Dilations
7.MGSR.2.3 Identify the relationships and measures among angles formed by two intersecting lines, given the measure of one angle. Limit to supplementary, complementary, vertical, and adjacent relationships.	7–8 M2 Lesson 1: Finding Unknown Angle Measures 7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations 7–8 M2 Lesson 7: Solving Multi-Step Equations
7.MGSR.2.4 Write and solve equations to solve mathematical and real-world situations involving the relationships among angles formed by two intersecting lines. Limit to supplementary, complementary, vertical, and adjacent relationships.	7–8 M2 Lesson 1: Finding Unknown Angle Measures 7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations 7–8 M2 Lesson 7: Solving Multi-Step Equations

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.MGSR.2.1 Determine missing angle measurements created when parallel lines are cut by a transversal.	7–8 M3 Lesson 12: Lines Cut by a Transversal 7–8 M3 Lesson 13: Angle Sum of a Triangle 7–8 M3 Lesson 14: Exterior Angles of Triangles
8.MGSR.2.2 Determine if two-dimensional figures are congruent or similar.	7–8 M3 Lesson 10: Sequencing the Rigid Motions 7–8 M3 Lesson 11: Showing Figures Are Congruent 7–8 M3 Lesson 27: Similar Figures 7–8 M3 Lesson 28: Exploring Angles in Similar Triangles
8.MGSR.2.3 Identify the congruent corresponding angles of similar polygons.	7–8 M3 Lesson 27: Similar Figures 7–8 M3 Lesson 28: Exploring Angles in Similar Triangles
8.MGSR.2.5 Apply proportional reasoning to find the missing side lengths of two similar figures.	7–8 M3 Lesson 29: Using Similar Figures to Find Unknown Side Lengths

Measurement, Geometry, and Spatial Reasoning

78.MGSR.3 Graph on the coordinate plane.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.MGSR.3.1 Find distances between ordered pairs on the coordinate plane, limited to the same x-coordinate or the same y-coordinate.	6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane 6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane
8.MGSR.3.1 Identify the transformation as a rotation, reflection, and/or translation. Limit rotations to multiples of 90 degrees centered on the origin.	7–8 M3 Lesson 7: Motions of the Plane 7–8 M3 Lesson 8: Translations, Reflections, and Rotations 7–8 M3 Lesson 9: Rigid Motions on the Coordinate Plane
8.MGSR.3.3 Translate geometric figures vertically and/or horizontally.	7–8 M3 Lesson 7: Motions of the Plane 7–8 M3 Lesson 8: Translations, Reflections, and Rotations 7–8 M3 Lesson 9: Rigid Motions on the Coordinate Plane
8.MGSR.3.4 Reflect geometric figures with respect to the x-axis and/or y-axis.	7–8 M3 Lesson 7: Motions of the Plane 7–8 M3 Lesson 8: Translations, Reflections, and Rotations 7–8 M3 Lesson 9: Rigid Motions on the Coordinate Plane
8.MGSR.3.5 Rotate geometric figures 90, 180, and 270 degrees, both clockwise and counterclockwise, about the origin in a coordinate plane.	7–8 M3 Lesson 7: Motions of the Plane 7–8 M3 Lesson 8: Translations, Reflections, and Rotations 7–8 M3 Lesson 9: Rigid Motions on the Coordinate Plane

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.MGSR.3.6 Create a dilation using a given scale factor and describe the effect of a dilation.	7–8 M3 Lesson 22: Dilations 7–8 M3 Lesson 23: Using Lined Paper to Explore Dilations 7–8 M3 Lesson 24: Figures and Dilations 7–8 M3 Lesson 25: The Shadowy Hand 7–8 M3 Lesson 26: Dilations on the Coordinate Plane
8.MGSR.3.7 Describe the effect of a series of transformations, including dilations, translations, rotations, and reflections, on two-dimensional figures using coordinates on the coordinate plane.	7–8 M3 Lesson 9: Rigid Motions on the Coordinate Plane 7–8 M3 Lesson 10: Sequencing the Rigid Motions 7–8 M3 Lesson 26: Dilations on the Coordinate Plane *Supplemental material is necessary to fully address this standard.*

Numerical Reasoning

78.NR.1 Translate among multiple representations of rational numbers.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.NR.1.1 Convert rational numbers into equivalent forms among fractions (including mixed numbers), decimals, and percentages. Exclude the conversion of repeating decimals to fractions.	7 M5 Lesson 2: Racing for Percents 7 M5 Lesson 7: Finding Discounts 7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease 7 M5 Lesson 24: Counting Problems 7–8 M1 Lesson 9: Decimal Expansions of Rational Numbers

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.NR.1.1 Convert any form of a rational number to any other form including fractions (mixed numbers), decimals, and percentages.	7–8 M1 Lesson 9: Decimal Expansions of Rational Numbers 7–8 M2 Lesson 6: Expressing Repeating Decimals as Fractions

Numerical Reasoning

78.NR.2 Utilize real numbers in mathematical and real-world situations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.NR.2.1 Compare two rational numbers and write statements using *is equal to* (=), *is not equal to* (≠), *is less than* (<), *is greater than* (>), *is greater than or equal to* (≥), and/or *is less than or equal to* (≤) in mathematical and real-world situations.	6 M3 Lesson 5: Comparing Rational Numbers 6 M3 Lesson 6: Ordering Rational Numbers *Supplemental material is necessary to fully address this standard.*
8.NR.2.1 Compare real numbers and write statements using *is equal to* (=), *is not equal to* (≠), *is less than* (<), *is greater than* (>), *is greater than or equal to* (≥), or *is less than or equal to* (≤).	7–8 M1 Lesson 21: Approximating Values of Roots 7–8 M1 Lesson 22: Rational and Irrational Numbers *Supplemental material is necessary to fully address this standard.*

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.NR.2.2 Classify and order the subsets of real numbers in the number system including natural, whole, integer, rational, and irrational numbers.	7–8 M1 Lesson 22: Rational and Irrational Numbers *Supplemental material is necessary to address classifying subsets of rational numbers, specifically natural numbers, whole numbers, and integers.*

Patterns, Algebra, and Functional Reasoning

78.PAFR.1 Determine if a table, graph, verbal description, or equation represents a function and describe its characteristics.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.1.1 Apply proportional reasoning to solve problems in mathematical and real-world situations involving ratios and percentages.	7–8 M2 Lesson 16: Applying Proportional Reasoning 7–8 M2 Lesson 17: Using Proportional Reasoning to Solve Multi-Step Problems 7–8 M2 Lesson 18: Handstand Sprint 7–8 M2 Topic D: Percents and Proportional Relationships
7.PAFR.1.2 Create a model with functions that address a proportional relationship in real-world situations.	7–8 M5 Lesson 6: Linear Functions and Rate of Change 7–8 M5 Lesson 7: Interpreting Rate of Change and Initial Value 7–8 M5 Lesson 23: Applications of Volume
7.PAFR.1.3 Identify the constant of proportionality within proportional relationships.	7–8 M2 Lesson 14: Exploring Graphs of Proportional Relationships 7–8 M2 Lesson 15: Relating Representations of Proportional Relationships 7–8 M2 Lesson 16: Applying Proportional Reasoning

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.PAFR.1.1 Define an equation in slope-intercept form ($y = mx + b$) as being a linear function.	7–8 M5 Lesson 3: Linear Functions and Proportionality 7–8 M5 Lesson 6: Linear Functions and Rate of Change 7–8 M5 Lesson 10: Graphs of Nonlinear Functions
8.PAFR.1.2 Identify and describe the constant rate of change and the y-intercept of a linear function.	7–8 M5 Lesson 6: Linear Functions and Rate of Change 7–8 M5 Lesson 7: Interpreting Rate of Change and Initial Value 7–8 M5 Lesson 23: Applications of Volume
8.PAFR.1.3 Determine if a graph, table, mapping, or verbal description is a function (linear or nonlinear) or not a function.	7–8 M5 Lesson 1: Motion and Speed 7–8 M5 Lesson 2: Definition of a Function 7–8 M5 Lesson 4: More Examples of Functions 7–8 M5 Lesson 5: Graphs of Functions and Equations
8.PAFR.1.4 Describe the key features of given functions, including *domain*, *range*, *intervals of increasing or decreasing*, *constant*, *discrete*, *continuous*, and *intercepts*.	A1 M3 Lesson 7: Exploring Key Features of a Function and Its Graph A1 M3 Lesson 8: Identifying Key Features of a Function and Its Graph A1 M3 Lesson 9: Representing Functions from Verbal Descriptions A1 M3 Lesson 11: Comparing Functions A1 M3 Lesson 12: Mars Curiosity Rover A1 M3 Lesson 13: Modeling Elevation as a Function of Time *Supplemental material is necessary to address describing key features of given functions using the terms* discrete *and* continuous.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.PAFR.1.6 Translate among the multiple representations including mappings, tables, graphs, verbal description, and equations (only when linear) of a function.	A1 M3 Lesson 6: Representations of Functions

Patterns, Algebra, and Functional Reasoning

78.PAFR.2 Write, simplify, and evaluate algebraic expressions; write and solve algebraic equations and inequalities.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.2.1 Write and solve multi-step equations and inequalities in one variable involving rational numbers in mathematical and real-world situations.	7–8 M2 Lesson 3: Solving Equations 7–8 M2 Lesson 4: Using Equations to Solve Inequalities 7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities A1 M1 Lesson 13: Solving Linear Inequalities in One Variable
7.PAFR.2.2 Write and evaluate expressions in one variable that model mathematical and real-world situations.	7–8 M2 Lesson 3: Solving Equations 7–8 M2 Lesson 4: Using Equations to Solve Inequalities 7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities *Supplemental material is necessary to fully address this standard.*
7.PAFR.2.3 Compute unit rates, including those involving complex fractions with like or different units.	7–8 M2 Lesson 12: An Experiment with Ratios and Rates 7–8 M2 Lesson 13: Exploring Tables of Proportional Relationships

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.2.4 Use dimensional analysis to convert units between metric and customary systems.	6 M1 Lesson 19: Using Rates to Convert Units 6 M1 Lesson 20: Solving Rate Problems 6 M1 Lesson 21: Solving Multi-Step Rate Problems
8.PAFR.2.1 Solve multi-step one variable equations and inequalities with variables on both sides with rational coefficients.	7–8 M2 Lesson 3: Solving Equations 7–8 M2 Lesson 4: Using Equations to Solve Inequalities 7–8 M2 Lesson 5: Solving Problems Involving Equations and Inequalities A1 M1 Lesson 13: Solving Linear Inequalities in One Variable
8.PAFR.2.3 Identify the rate of change for a linear function as the slope of the line.	7–8 M4 Lesson 5: Proportional Relationships and Slope

Patterns, Algebra, and Functional Reasoning

78.PAFR.3 Apply mathematical patterns, properties, and algorithms to the set of rational numbers to find sums, differences, products, and quotients and to write equivalent expressions.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.3.1 Simplify numerical expressions that include integer exponents using the laws of exponents: the *Product of Powers*, *Quotient of Powers*, *Power of a Power*, *Power of a Product*, *Power of a Quotient*, *Zero Power*, and *Negative Exponent*.	7–8 M1 Lesson 11: Products of Exponential Expressions with Positive Whole-Number Exponents 7–8 M1 Lesson 12: More Properties of Exponents 7–8 M1 Lesson 13: Making Sense of Integer Exponents

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.3.2 Identify linear expressions that are equivalent.	7 M3 Lesson 1: Equivalent Expressions 7 M3 Lesson 2: The Distributive Property and the Tabular Model 7 M3 Lesson 4: Adding and Subtracting Expressions 7 M3 Lesson 5: Factoring Expressions 7 M3 Lesson 6: Comparing Expressions 7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations
7.PAFR.3.3 Recognize that algebraic expressions may have a variety of equivalent forms and determine an appropriate form for a given real-world situation.	7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations 7–8 M2 Lesson 21: Discount, Markup, Sales Tax, and Tip 7–8 M2 Lesson 22: Percent Increase and Percent Decrease
7.PAFR.3.4 Factor linear expressions with integer coefficients using the greatest common factor (GCF).	7–8 M2 Lesson 2: Using Equivalent Expressions to Solve Equations
7.PAFR.3.5 Apply all operations with rational numbers to solve problems in mathematical and real-world situations.	7–8 M1 Lesson 1: Adding Integers and Rational Numbers 7–8 M1 Lesson 3: Finding Distances to Find Differences 7–8 M1 Lesson 4: Subtracting Integers 7–8 M1 Lesson 5: Subtracting Rational Numbers 7–8 M1 Lesson 6: Multiplying Integers and Rational Numbers 7–8 M1 Lesson 8: Dividing Integers and Rational Numbers

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
8.PAFR.3.3 Apply laws of exponents to simplify algebraic expressions involving no more than three variables and integer exponents.	7–8 M1 Lesson 11: Products of Exponential Expressions with Positive Whole-Number Exponents 7–8 M1 Lesson 12: More Properties of Exponents 7–8 M1 Lesson 13: Making Sense of Integer Exponents