Grade 7 | 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

7.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 *Supplemental material is necessary to address mode and outliers.*
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

Data, Probability, and Statistical Reasoning

7.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 M6 Lesson 1: What is Probability?
7.DPSR.2.2 Calculate and interpret the theoretical probability of a simple random event.	7 M6 Lesson 4: Theoretical Probability 7 M6 Lesson 7: 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 M6 Lesson 2: Empirical Probability 7 M6 Lesson 3: Outcomes of Chance Experiments 7 M6 Lesson 6: Outcomes That Are Not Equally Likely 7 M6 Lesson 8: 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 M6 Lesson 2: Empirical Probability 7 M6 Lesson 3: Outcomes of Chance Experiments 7 M6 Lesson 6: Outcomes That Are Not Equally Likely 7 M6 Lesson 8: Picking Blue

Measurement, Geometry, and Spatial Reasoning

7.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 the parts to *center*, *radius*, *diameter*, and *chord*.	7 M4 Lesson 9: Constructing a Circle 7 M4 Lesson 10: The Outside of a Circle *Supplemental material is necessary to address chords.*
7.MGSR.1.2 Describe the relationship between the *radius*, *diameter*, and *circumference* of a circle.	7 M4 Lesson 9: Constructing a Circle 7 M4 Lesson 10: The Outside of a Circle 7 M4 Lesson 13: Finding Areas of Circular Regions 7 M4 Lesson 14: Composite Figures with Circular Regions

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.MGSR.1.3 Solve mathematical and real-world situations involving circumference or area of circles.	7 M4 Lesson 10: The Outside of a Circle 7 M4 Lesson 11: The Inside of a Circle 7 M4 Lesson 12: Exploring the Area and Circumference of a Circle 7 M4 Lesson 13: Finding Areas of Circular Regions 7 M4 Lesson 14: Composite Figures with Circular Regions 7 M4 Lesson 15: Watering a Lawn
7.MGSR.1.4 Determine if three given side lengths can form a triangle using the *Triangle Inequality Theorem*.	7 M4 Lesson 3: Side Lengths of a Triangle
7.MGSR.1.5 In mathematical and real-world situations, find the volume of right prisms and right pyramids having triangular or quadrilateral bases.	6 M5 Topic D: Volumes of Right Rectangular Prisms 7 M4 Lesson 24: Volume of Prisms 7 M4 Lesson 25: Volume of Composite Solids 7 M4 Lesson 26: Designing a Fish Tank 8 M6 Lesson 21: Volume of Prisms and Pyramids *Supplemental material is necessary for volume of right pyramids.*
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 M4 Lesson 16: Solving Area Problems by Composition and Decomposition 7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms 7 M4 Lesson 18: Surface Area of Right Prisms 7 M4 Lesson 20: Surface Areas of Right Pyramids 7 M4 Lesson 21: Surface Area of Other Solids 7 M4 Lesson 26: Designing a Fish Tank

Measurement, Geometry, and Spatial Reasoning

7.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 M4 Lesson 4: Angles of a Triangle 7 M4 Lesson 5: Constructing Quadrilaterals and Triangles 7 M4 Topic B: Constructing Triangles 7 M4 Lesson 9: Constructing a Circle
7.MGSR.2.2 Solve mathematical and real-world situations involving dimensions and areas of geometric figures including scale drawings and scale factors.	7 M1 Lesson 15: Scale Drawings 7 M1 Lesson 16: Using a Scale Factor 7 M1 Lesson 17: Finding Actual Distances from a Scale Drawing 7 M1 Lesson 18: Relating Areas of Scale Drawings 7 M1 Lesson 19: Scale and Scale Factor 7 M1 Lesson 20: Creating Multiple Scale Drawings 7 M5 Lesson 1: Proportionality and Scale Factor 7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease
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 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Lesson 10: Problem Solving with Unknown Angle Measures

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
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 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Lesson 10: Problem Solving with Unknown Angle Measures

Measurement, Geometry, and Spatial Reasoning

7.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

Numerical Reasoning

7.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 M2 Lesson 19: Rational Numbers as Decimals, Part 1 7 M2 Lesson 20: Rational Numbers as Decimals, Part 2 7 M2 Lesson 21: Comparing and Ordering Rational Numbers 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

Numerical Reasoning

7.NR.2 Utilize rational 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 6 M3 Lesson 8: Absolute Value and Order *Supplemental material is necessary to address the* is not equal to *symbol.*

Patterns, Algebra, and Functional Reasoning

7.PAFR.1 Use tables, graphs, verbal descriptions, or equations to represent a function.

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 M1 Lesson 7: Handstand Sprint 7 M1 Lesson 10: Applying Proportional Reasoning 7 M1 Lesson 11: Constant Rates 7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1 7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2 7 M5 Lesson 2: Racing for Percents 7 M5 Lesson 3: Percent as a Rate per 100 7 M5 Lesson 4: Proportion and Percent 7 M5 Lesson 5: Common Denominators or Common Numerators 7 M5 Topic B: Part of 100 7 M5 Lesson 10: Percent Increase 7 M5 Lesson 11: Percent Decrease 7 M5 Lesson 12: More Discounts 7 M5 Lesson 13: What Is the Best Deal? 7 M5 Topic D: Applications of Percent 7 M5 Lesson 20: Making Money, Day 1 7 M5 Lesson 21: Making Money, Day 2 7 M5 Lesson 22: Making Mixtures 7 M5 Lesson 23: Percents of Percents

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.1.2 Create a model with functions that address a proportional relationship 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 25: Applications of Volume
7.PAFR.1.3 Identify the constant of proportionality within proportional relationships.	7 M1 Lesson 4: Exploring Graphs of Proportional Relationships 7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships 7 M1 Lesson 6: Identifying Proportional Relationships in Written Descriptions 7 M1 Lesson 8: Relating Representations of Proportional Relationships 7 M1 Lesson 9: Comparing Proportional Relationships 7 M1 Lesson 11: Constant Rates 7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1 7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2 7 M1 Lesson 16: Using a Scale Factor 7 M1 Lesson 18: Relating Areas of Scale Drawings

Patterns, Algebra, and Functional Reasoning

7.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 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Topic C: Solving Equations 7 M3 Topic D: Inequalities
7.PAFR.2.2 Write and evaluate expressions in one variable that model mathematical and real-world situations.	7 M3 Topic A: Equivalent Expressions
7.PAFR.2.3 Compute unit rates, including those involving complex fractions with like or different units.	7 M1 Lesson 1: An Experiment with Ratios and Rates 7 M1 Lesson 2: Exploring Tables of Proportional Relationships 7 M1 Lesson 3: Identifying Proportional Relationships in Tables
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

Patterns, Algebra, and Functional Reasoning

7.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*.	8 M1 Topic B: Properties and Definitions of Exponents
7.PAFR.3.2 Identify linear expressions that are equivalent.	7 M3 Topic A: Equivalent Expressions
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 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 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures 7 M5 Lesson 10: Percent Increase 7 M5 Lesson 11: Percent Decrease 7 M5 Lesson 12: More Discounts 7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease 7 M5 Lesson 15: Tips and Taxes 7 M5 Lesson 16: Markups and Discounts 7 M5 Lesson 23: Percents of Percents

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
7.PAFR.3.4 Factor linear expressions with integer coefficients using the greatest common factor (GCF).	7 M3 Lesson 5: Factoring Expressions *Supplemental material is necessary to address using the greatest common factor.*
7.PAFR.3.5 Apply all operations with rational numbers to solve problems in mathematical and real-world situations.	7 M2 Topic A: Adding Rational Numbers 7 M2 Topic B: Subtracting Rational Numbers 7 M2 Topic C: Multiplying Rational Numbers 7 M2 Topic D: Dividing Rational Numbers 7 M2 Topic E: Numerical Expressions with Rational Numbers