Grade 5 | South Carolina College and Career Ready Standards for Mathematics Correlation to *Eureka Math*²™

When the original *Eureka Math*® curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher–writers have created *Eureka Math*²™, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math*² carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

*Eureka Math*² employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

*Eureka Math*² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math*² teacher–writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math*² add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Standards for Mathematical Practice	Aligned Components of *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.

Number Sense and Base Ten

5.NSBT Number Sense and Base Ten

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.NSBT.1 Understand that, in a multi-digit whole number, a digit in one place represents 10 times what the same digit represents in the place to its right, and represents $\frac{1}{10}$ times what the same digit represents in the place to its left.	5 M1 Lesson 1: Relate adjacent place value units by using place value understanding. 5 M1 Lesson 2: Multiply and divide by 10, 100, and $1{,}000$ and identify patterns in the products and quotients. 5 M4 Lesson 1: Model and relate decimal place value units to thousandths. 5 M4 Lesson 2: Represent thousandths as a place value unit. 5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms. 5 M4 Lesson 4: Relate the values of digits in a decimal number by using place value understanding.
5.NSBT.2 Use whole number exponents to explain:	*This standard is fully addressed by the lessons aligned to its subsections.*
5.NSBT.2.a patterns in the number of zeroes of the product when multiplying a number by powers of 10;	5 M1 Lesson 2: Multiply and divide by 10, 100, and $1{,}000$ and identify patterns in the products and quotients. 5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10. 5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples. 5 M4 Lesson 5: Multiply and divide decimal numbers by powers of 10.
5.NSBT.2.b patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.	5 M1 Lesson 2: Multiply and divide by 10, 100, and $1{,}000$ and identify patterns in the products and quotients. 5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10. 5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples. 5 M4 Lesson 5: Multiply and divide decimal numbers by powers of 10.

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.NSBT.3 Read and write decimals in standard and expanded form. Compare two decimal numbers to the thousandths using the symbols >, =, or <.	5 M4 Lesson 1: Model and relate decimal place value units to thousandths. 5 M4 Lesson 2: Represent thousandths as a place value unit. 5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms. 5 M4 Lesson 6: Compare decimal numbers to the thousandths place.
5.NSBT.4 Round decimals to any given place value within thousandths.	5 M4 Lesson 7: Round decimal numbers to the nearest one, tenth, or hundredth. 5 M4 Lesson 8: Round decimal numbers to any place value unit.
5.NSBT.5 Fluently multiply multi-digit whole numbers using strategies to include a standard algorithm.	5 M1 Topic B: Multiplication of Whole Numbers
5.NSBT.6 Divide up to a four-digit dividend by a two-digit divisor, using strategies based on place value, the properties of operations, and the relationship between multiplication and division.	5 M1 Topic C: Division of Whole Numbers
5.NSBT.7 Add, subtract, multiply, and divide decimal numbers to hundredths using concrete area models and drawings.	5 M4 Topic B: Addition and Subtraction of Decimal Numbers 5 M4 Topic C: Multiplication of Decimal Numbers 5 M4 Topic D: Division of Decimal Numbers

Number Sense and Operations—Fractions

5.NSF Number Sense and Operations—Fractions

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.NSF.1 Add and subtract fractions with unlike denominators (including mixed numbers) using a variety of models, including an area model and number line.	5 M2 Topic B: Addition and Subtraction of Fractions by Making Like Units 5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers
5.NSF.2 Solve real-world problems involving addition and subtraction of fractions with unlike denominators.	5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers 5 M2 Lesson 17: Solve problems by equally redistributing a total amount.
5.NSF.3 Understand the relationship between fractions and division of whole numbers by interpreting a fraction as the numerator divided by the denominator (i.e., $\frac{a}{b} = a \div b$).	5 M2 Topic A: Fractions and Division
5.NSF.4 Extend the concept of multiplication to multiply a fraction or whole number by a fraction.	*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*
5.NSF.4.a Recognize the relationship between multiplying fractions and finding the areas of rectangles with fractional side lengths;	5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square. 5 M5 Lesson 9: Organize, count, and represent a collection of square tiles. 5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square. 5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication. 5 M5 Lesson 12: Multiply mixed numbers. 5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths. 5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths. 5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.
5.NSF.4.b Interpret multiplication of a fraction by a whole number and a whole number by a fraction and compute the product;	5 M3 Topic A: Multiplication of a Whole Number by a Fraction
5.NSF.4.c Interpret multiplication in which both factors are fractions less than one and compute the product.	5 M3 Lesson 7: Multiply fractions less than 1 by unit fractions pictorially. 5 M3 Lesson 8: Multiply fractions less than 1 pictorially. 5 M3 Lesson 9: Multiply fractions by unit fractions by making simpler problems. 5 M3 Lesson 11: Multiply fractions.
5.NSF.5 Justify the reasonableness of a product when multiplying with fractions.	*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*
5.NSF.5.a Estimate the size of the product based on the size of the two factors;	5 M3 Lesson 3: Multiply a whole number by a fraction less than 1. 5 M3 Lesson 4: Multiply a whole number by a fraction. 5 M3 Topic B: Multiplication of Fractions
5.NSF.5.b Explain why multiplying a given number by a number greater than 1 (e.g., improper fractions, mixed numbers, whole numbers) results in a product larger than the given number;	5 M3 Lesson 1: Find fractions of a set with arrays. 5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines. 5 M3 Lesson 4: Multiply a whole number by a fraction. 5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units. 5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units. 5 M3 Topic B: Multiplication of Fractions
5.NSF.5.c Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number;	5 M3 Lesson 1: Find fractions of a set with arrays. 5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines. 5 M3 Lesson 4: Multiply a whole number by a fraction. 5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units. 5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units. 5 M3 Topic B: Multiplication of Fractions
5.NSF.5.d Explain why multiplying the numerator and denominator by the same number has the same effect as multiplying the fraction by 1.	5 M3 Lesson 1: Find fractions of a set with arrays. 5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines. 5 M3 Lesson 4: Multiply a whole number by a fraction. 5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.NSF.5.d *continued*	5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units. 5 M3 Topic B: Multiplication of Fractions
5.NSF.6 Solve real-world problems involving multiplication of a fraction by a fraction, improper fraction and a mixed number.	5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division. 5 M3 Lesson 21: Solve multi-step word problems involving fractions. 5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths. 5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.
5.NSF.7 Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations.	*This standard is fully addressed by the lessons aligned to its subsections.*
5.NSF.7.a Interpret division of a unit fraction by a non-zero whole number and compute the quotient;	5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number. 5 M3 Lesson 15: Divide by whole numbers and unit fractions. 5 M3 Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers. 5 M3 Lesson 19: Create and solve one-step word problems involving fractions.
5.NSF.7.b Interpret division of a whole number by a unit fraction and compute the quotient.	5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group. 5 M3 Lesson 15: Divide by whole numbers and unit fractions. 5 M3 Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers. 5 M3 Lesson 19: Create and solve one-step word problems involving fractions.

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.NSF.8 Solve real-world problems involving division of unit fractions and whole numbers, using visual fraction models and equations.	5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group. 5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number. 5 M3 Lesson 15: Divide by whole numbers and unit fractions. 5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division. 5 M3 Lesson 19: Create and solve one-step word problems involving fractions. 5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses. 5 M3 Lesson 21: Solve multi-step word problems involving fractions.

Algebraic Thinking and Operations

5.ATO Algebraic Thinking and Operations

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.ATO.1 Evaluate numerical expressions involving grouping symbols (i.e., parentheses, brackets, braces).	5 M1 Lesson 7: Multiply by using familiar methods. 5 M1 Lesson 8: Multiply two- and three-digit numbers by two-digit numbers by using the distributive property. 5 M1 Topic D: Multi-Step Problems with Whole Numbers 5 M3 Lesson 18: Compare and evaluate expressions with parentheses. 5 M3 Lesson 22: Evaluate expressions involving nested grouping symbols. 5 M4 Lesson 29: Interpret, evaluate, and compare numerical expressions involving decimals. 5 M4 Lesson 30: Create and solve real-world problems for given numerical expressions involving decimals.

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.ATO.2 Translate verbal phrases into numerical expressions and interpret numerical expressions as verbal phrases.	5 M1 Topic D: Multi-Step Problems with Whole Numbers 5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers. 5 M3 Lesson 18: Compare and evaluate expressions with parentheses. 5 M4 Lesson 29: Interpret, evaluate, and compare numerical expressions involving decimals. 5 M4 Lesson 30: Create and solve real-world problems for given numerical expressions involving decimals.
5.ATO.3 Investigate the relationship between two numerical patterns.	*This standard is fully addressed by the lessons aligned to its subsections.*
5.ATO.3.a Generate two numerical patterns given two rules and organize in tables;	5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.
5.ATO.3.b Translate the two numerical patterns into two sets of ordered pairs;	5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Lesson 20: Reason about patterns in real-world situations.

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5.ATO.3.c Graph the two sets of ordered pairs on the same coordinate plane;	5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines. 5 M6 Lesson 20: Reason about patterns in real-world situations.
5.ATO.3.d Identify the relationship between the two numerical patterns.	5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines. 5 M6 Lesson 20: Reason about patterns in real-world situations.

Geometry

5.G Geometry

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.1 Define a coordinate system.	*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*
5.G.1.a The x- and y-axes are perpendicular number lines that intersect at 0 (the origin);	5 M6 Lesson 1: Construct a coordinate system on a line. 5 M6 Lesson 2: Construct a coordinate system in a plane. 5 M6 Lesson 3: Identify and plot points by using ordered pairs.
5.G.1.b Any point on the coordinate plane can be represented by its coordinates;	5 M6 Lesson 1: Construct a coordinate system on a line. 5 M6 Lesson 2: Construct a coordinate system in a plane. 5 M6 Lesson 3: Identify and plot points by using ordered pairs.
5.G.1.c The first number in an ordered pair is the x-coordinate and represents the horizontal distance from the origin;	5 M6 Lesson 1: Construct a coordinate system on a line. 5 M6 Lesson 2: Construct a coordinate system in a plane. 5 M6 Lesson 3: Identify and plot points by using ordered pairs.
5.G.1.d The second number in an ordered pair is the y-coordinate and represents the vertical distance from the origin.	5 M6 Lesson 1: Construct a coordinate system on a line. 5 M6 Lesson 2: Construct a coordinate system in a plane. 5 M6 Lesson 3: Identify and plot points by using ordered pairs.
5.G.2 Plot and interpret points in the first quadrant of the coordinate plane to represent real-world and mathematical situations.	5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane. 5 M6 Lesson 5: Identify properties of horizontal and vertical lines. 5 M6 Lesson 6: Use properties of horizontal and vertical lines to solve problems. 5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Topic C: Solve Mathematical Problems in the Coordinate Plane

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.G.2 ***continued***	5 M6 Lesson 16: Interpret graphs that represent real-world situations. 5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships. 5 M6 Lesson 18: Interpret line graphs. 5 M6 Lesson 20: Reason about patterns in real-world situations.
5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	5 M5 Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures
5.G.4 Classify two-dimensional figures in a hierarchy based on their attributes.	5 M5 Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures 5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.

Measurement and Data Analysis

5.MDA Measurement and Data Analysis

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.MDA.1 Convert measurements within a single system of measurement: customary (i.e., in., ft., yd., oz., lb., sec., min., hr.) or metric (i.e., mm, cm, m, km, g, kg, mL, L) from a larger to a smaller unit and a smaller to a larger unit.	5 M1 Lesson 5: Convert measurements and describe relationships between metric units. 5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion. 5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units. 5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units. 5 M4 Lesson 26: Solve a real-world problem involving metric measurements. 5 M4 Lesson 27: Convert metric measurements involving decimals. 5 M4 Lesson 28: Convert customary measurements involving decimals.

South Carolina College and Career Ready Standards for Mathematics	Aligned Components of *Eureka Math²*
5.MDA.2 Create a line plot consisting of unit fractions and use operations on fractions to solve problems related to the line plot.	5 M2 Topic D: Problem Solving and Line Plots with Fractional Measurements
5.MDA.3 Understand the concept of volume measurement.	*This standard is fully addressed by the lessons aligned to its subsections.*
5.MDA.3.a Recognize volume as an attribute of right rectangular prisms;	5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms. 5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting. 5 M5 Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers. 5 M5 Lesson 20: Interpret volume as filling. 5 M5 Lesson 21: Relate volumes of solids and liquid volume.
5.MDA.3.b Relate volume measurement to the operations of multiplication and addition by packing right rectangular prisms and then counting the layers of standard unit cubes;	5 M5 Topic C: Volume Concepts

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5.MDA.3.c Determine the volume of right rectangular prisms using the formula derived from packing right rectangular prisms and counting the layers of standard unit cubes.	5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base. 5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths. 5 M5 Lesson 25: Find the volumes of solid figures composed of right rectangular prisms. 5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume. 5 M5 Lesson 27: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 1. 5 M5 Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.
5.MDA.4 Differentiate among perimeter, area and volume and identify which application is appropriate for a given situation.	5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms. 5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume.