Grade 4 | 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
4.DPSR.1 Create questions, collect and analyze data, and communicate interpretations through multiple representations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.DPSR.1.1 Collect and organize numerical and categorical data based on observations, investigations, surveys, and experiments using tables, scaled bar graphs, or dot plots. Use titles and labels. Scales to include whole numbers, halves, and fourths.	3 M2 Lesson 13: Collect and represent data in a scaled bar graph and solve related problems. 3 M5 Lesson 16: Measure lengths and record data on a line plot. 3 M6 Lesson 20: Record measurement data in a line plot. 3 M6 Lesson 21: Create and analyze a line plot for measurement data to the nearest half unit and quarter unit. 3 M6 Lesson 22: Generate categorical data and represent it by using a scaled picture graph. 3 M6 Lesson 23: Solve word problems by creating scaled picture graphs and scaled bar graphs.
4.DPSR.1.2 Solve one-step, real-world situations using whole number and fractional data represented in tables, scaled picture graphs, scaled bar graphs, or dot plots. Limit to like denominators of 2, 3, 4, 5, 6, 8, and 10.	3 M2 Lesson 13: Collect and represent data in a scaled bar graph and solve related problems. 3 M5 Lesson 16: Measure lengths and record data on a line plot. 3 M6 Lesson 20: Record measurement data in a line plot. 3 M6 Lesson 21: Create and analyze a line plot for measurement data to the nearest half unit and quarter unit. 3 M6 Lesson 22: Generate categorical data and represent it by using a scaled picture graph. 3 M6 Lesson 23: Solve word problems by creating scaled picture graphs and scaled bar graphs.

Data, Probability, and Statistical Reasoning

4.DPSR.2 Represent the probability of simple events and determine possible outcomes.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.DPSR.2.1 Determine the possible outcomes of a simple event and record the probability as certain, possible, or impossible.	*Supplemental material is necessary to address this standard.*

Measurement, Geometry, and Spatial Reasoning

4.MGSR.1 Solve area and perimeter problems in real-world and mathematical situations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.MGSR.1.1 Apply perimeter formulas for rectangles to solve real-world situations including finding the perimeter, given the side lengths, and finding an unknown side length.	4 M2 Lesson 18: Investigate and use formulas for the perimeter of a rectangle. 4 M2 Lesson 19: Apply area and perimeter formulas to solve problems. 4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons.
4.MGSR.1.2 Apply area formulas for rectangles to solve real-world situations. Use square units to label area measurements.	4 M2 Lesson 3: Investigate and use a formula for the area of a rectangle. 4 M2 Lesson 7: Multiply by using an area model and the distributive property.

Measurement, Geometry, and Spatial Reasoning
4.MGSR.2 Estimate and measure using units of length, liquid volume, weight, currency, and intervals of time.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.MGSR.2.1 Calculate the value of a collection of coins and bills in real-world situations to determine whether there is enough money to make a purchase. Justify based on comparison of money amounts.	4 M5 Lesson 1: Organize, count, and represent a collection of money. *Supplemental material is necessary to fully address this standard.*
4.MGSR.2.2 Solve real-world situations involving addition and subtraction of time intervals within 60 minutes to find elapsed time, start time, or end time.	3 M6 Lesson 3: Solve time word problems where the end time is unknown. 3 M6 Lesson 4: Solve time word problems where the start time is unknown. 3 M6 Lesson 5: Solve time word problems where the change in time is unknown. 3 M6 Lesson 6: Solve time word problems and use time data to create a line plot.
4.MGSR.2.3 Measure length to the nearest quarter inch.	3 M5 Lesson 16: Measure lengths and record data on a line plot. 3 M6 Lesson 19: Measure the perimeter of various circles to the nearest quarter inch by using string.
4.MGSR.2.4 Measure weight in customary units and metric units to the nearest whole unit. Limit to ounces, pounds, grams, and kilograms.	3 M2 Lesson 2: Estimate the weight of familiar objects and read scales when weighing objects. *Supplemental material is necessary to fully address measuring weight in customary units.*

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.MGSR.2.5 Convert customary units of length, weight, and liquid volume from a larger unit to a smaller unit, given direct comparisons of the two measurements and/or the unit equivalencies within a single system of measurement. Limit to inches, feet, yards, ounces, pounds, fluid ounces, cups, pints, quarts, and gallons when given unit equivalencies.	4 M2 Lesson 17: Express measurements of length in terms of smaller units. 4 M3 Topic E: Problem Solving with Measurement

Measurement, Geometry, and Spatial Reasoning

4.MGSR.3 Extend geometric reasoning to attributes of polygons and/or polyhedrons.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.MGSR.3.1 Classify triangles according to side length (*isosceles*, *equilateral*, *scalene*) and angle measure (*acute*, *obtuse*, *right*, *equiangular*).	4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both. 4 M6 Lesson 19: Construct and classify triangles based on given attributes. 4 M6 Lesson 20: Sort polygons based on a given rule. *Supplemental material is necessary to address the term congruent.*
4.MGSR.3.2 Classify quadrilaterals in a hierarchy based on their shared 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.

Numerical Reasoning

4.NR.1 Represent and compare numbers using relationships within the base ten number system.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.NR.1.1 Read and write whole numbers through the millions period (0 to 999,999,999) in word, standard, and equations in expanded form.	4 M1 Lesson 5: Organize, count, and represent a collection of objects. 4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right. 4 M1 Lesson 7: Write numbers to 1,000,000 in unit form and expanded form by using place value structure. 4 M1 Lesson 8: Write numbers to 1,000,000 in standard form and word form. 4 M1 Lesson 10: Name numbers by using place value understanding. 4 M1 Lesson 11: Find 1, 10, and 100 thousand more than and less than a given number. *Supplemental material is necessary to address numbers greater than* 1,000,000.
4.NR.1.2 Estimate sums, differences, products, and quotients of multi-digit whole numbers, using rounding and place value to determine the reasonableness of real-world problem solutions. Write an equation for the estimate.	4 M1 Lesson 12: Round to the nearest thousand. 4 M1 Lesson 13: Round to the nearest ten thousand and hundred thousand. 4 M1 Lesson 14: Round multi-digit numbers to any place. 4 M1 Lesson 15: Apply estimation to real-world situations by using rounding. 4 M1 Topic D: Multi-Digit Whole Number Addition and Subtraction 4 M2 Lesson 13: Divide three-digit numbers by one-digit numbers by using an area model. 4 M3 Topic F: Remainders, Estimating, and Problem Solving
4.NR.1.3 Order whole numbers within 999,999 (no more than 3) in ascending or descending order and record the comparison(s) using symbols for *is less than* (<) and/or *is greater than* (>).	4 M1 Lesson 9: Compare numbers within 1,000,000 by using >, =, and <.

Numerical Reasoning

4.NR.2 Represent and compare fractions in multiple ways using part-whole relationships.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.NR.2.1 Represent fractions with denominators of 10 and 100 in words, models, and decimal notations.	4 M5 Topic A: Exploration of Tenths 4 M5 Topic B: Tenths and Hundredths
4.NR.2.2 Compare decimal numbers to the hundredths using the benchmarks 0, 0.5, and 1.0, concrete area, and linear models. Use the symbols for *is equal to* (=), *is less than* (<), and/or *is greater than* (>).	4 M5 Topic C: Comparison of Decimal Numbers
4.NR.2.3 Generate equivalent fractions, including fractions greater than 1, using multiple representations. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.	4 M4 Lesson 8: Generate equivalent fractions with smaller units for unit fractions. 4 M4 Lesson 9: Generate equivalent fractions with smaller units for non-unit fractions. 4 M4 Lesson 10: Generate equivalent fractions with larger units. 4 M4 Lesson 11: Represent equivalent fractions by using tape diagrams, number lines, and multiplication or division. 4 M4 Lesson 12: Generate equivalent fractions for fractions greater than 1 and generate equivalent mixed numbers.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.NR.2.4 Represent the composition and decomposition of fractions with the same denominator, including mixed numbers and fractions greater than 1, using multiple representations. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions. 4 M4 Topic D: Add and Subtract Fractions
4.NR.2.5 Explain and demonstrate how a mixed number is equivalent to a fraction greater than 1 and how a fraction greater than 1 is equivalent to a mixed number. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions.
4.NR.2.6 Compare fractions and mixed numbers with like and unlike denominators applying benchmark fractions such as $0, \frac{1}{2}$, and 1 using the symbols for *is equal to* (=), *is less than* (<), or *is greater than* (>). Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.	4 M4 Topic C: Compare Fractions

Patterns, Algebra, and Functional Reasoning

4.PAFR.1 Use multiple representations to reason and solve problems involving operational properties of whole numbers and decimals.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.PAFR.1.1 Use a strategy to accurately compute sums and differences of whole numbers up to 100,000 and justify the sum or difference.	4 M1 Topic D: Multi-Digit Whole Number Addition and Subtraction
4.PAFR.1.2 Compute the product of a one-digit whole number times a multiple of 10 (from 10 to 90) and 100 (from 100 to 900) based on place value and properties of operations.	3 M3 Lesson 20: Multiply by multiples of 10 by using the place value chart. 3 M3 Lesson 21: Multiply by multiples of 10 by using place value strategies and the associative property. 3 M3 Lesson 22: Solve two-step word problems involving multiplication of single-digit factors and multiples of 10. 4 M2 Lesson 1: Multiply multiples of 10 by one-digit numbers by using the associative property of multiplication. 4 M3 Lesson 2: Multiply by multiples of 100 and 1,000
4.PAFR.1.3 Decompose numbers by the value of each digit to multiply whole numbers up to four digits by a one-digit number and two 2-digit whole numbers.	4 M2 Lesson 1: Multiply multiples of 10 by one-digit numbers by using the associative property of multiplication. 4 M2 Topic B: Multiplication of Tens and Ones by One-Digit Numbers 4 M3 Lesson 2: Multiply by multiples of 100 and 1,000. 4 M3 Lesson 3: Multiply a two-digit multiple of 10 by a two-digit multiple of 10. 4 M3 Topic C: Multiplication of up to Four-Digit Numbers by One-Digit Numbers 4 M3 Topic D: Multiplication of Two-Digit Numbers by Two-Digit Numbers

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.PAFR.1.4 Use a strategy to divide up to a four-digit dividend by a one-digit divisor, with and without remainders. Justify the calculation.	4 M2 Lesson 2: Divide two- and three-digit multiples of 10 by one-digit numbers. 4 M2 Topic C: Division of Tens and Ones by One-Digit Numbers 4 M3 Lesson 1: Divide multiples of 100 and 1,000. 4 M3 Topic B: Division of Thousands, Hundreds, Tens, and Ones 4 M3 Lesson 21: Find whole-number quotients and remainders. 4 M3 Lesson 22: Represent, estimate, and solve division word problems.

Patterns, Algebra, and Functional Reasoning
4.PAFR.2 Use multiple representations to reason and solve problems involving operational properties of fractions.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.PAFR.2.1 Use a strategy to accurately compute sums and differences of fractions with like denominators and justify the reasonableness of the answer. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 25 and 100.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions. 4 M4 Topic D: Add and Subtract Fractions 4 M4 Lesson 23: Add a fraction to a mixed number. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 25: Subtract a fraction from a mixed number, part 1. 4 M4 Lesson 26: Subtract a fraction from a mixed number, part 2. 4 M4 Lesson 27: Subtract a mixed number from a mixed number.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.PAFR.2.2 Use fraction and decimal equivalencies to add and subtract tenths and hundredths, to include mixed numbers and fractions greater than 1.	4 M5 Topic D: Addition of Tenths and Hundredths
4.PAFR.2.3 Represent and compute the product of a whole number times a unit fraction. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 25 and 100.	4 M4 Topic F: Repeated Addition of Fractions as Multiplication
4.PAFR.2.4 Interpret a fraction as an equal sharing division situation, where a quantity (the numerator) is divided into equal parts (the denominator) to include real-world situations.	5 M2 Topic A: Fractions and Division

Patterns, Algebra, and Functional Reasoning
4.PAFR.3 Use reasoning to represent and solve algebraic and numerical situations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math²*
4.PAFR.3.1 Find all factor pairs for a whole number in the range 1–50. Determine whether the whole number is prime or composite.	4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite. 4 M2 Lesson 22: Use division and the associative property of multiplication to find factors. 4 M2 Lesson 23: Determine whether a whole number is a multiple of another number. 4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors. 4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.
4.PAFR.3.2 Describe and extend a numerical pattern that follows a rule using function tables and real-world situations.	4 M2 Lesson 26: Use relationships within a pattern to find an unknown term in the sequence.
4.PAFR.3.3 Solve real-world situations involving multiplicative comparison situations and write equations to represent the problem using a variable for the unknown.	4 M1 Topic A: Multiplication as Multiplicative Comparison 4 M2 Lesson 9: Solve multiplication word problems. 4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons.
4.PAFR.3.4 Solve two-step, real-world situations using the four operations involving whole number answers. Represent the problem using an equation with a variable as the unknown in any position.	4 M1 Lesson 15: Apply estimation to real-world situations by using rounding. 4 M1 Lesson 16: Add by using the standard algorithm. 4 M1 Lesson 17: Solve multi-step addition word problems by using the standard algorithm. 4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction. 4 M1 Lesson 22: Solve multi-step word problems by using addition and subtraction. 4 M3 Topic F: Remainders, Estimating, and Problem Solving