Grade 3 | South Carolina College- and Career-Ready Mathematics Standards Correlation to *Eureka Math*®

About *Eureka Math*

Created by Great Minds®, a mission-driven Public Benefit Corporation, *Eureka Math*® helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

Aligned

Great Minds offers detailed analyses that demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

Data

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

Full Suite of Resources

Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum.

The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

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

A STORY OF UNITS — Lesson 8 — 3•1

S: (Turn boards 90 degrees.) 3 rows and 4 columns.
T: Tell your partner a different skip-count that also represents the array.
S: 4, 8, 12.
T: What is the difference between the vertical and horizontal arrays?
S: In the vertical array the 4 threes were rows, and in the horizontal array they were columns. → It's the same with the 3 fours. They were columns, then rows.
MP.7 T: Did the total number of dots change?
S: No.
T: So, the total and the factors stay the same, but the factors switch places. Yesterday, we learned a special name for that. It's called…
S: Commutative! → The commutative property!
T: Use the commutative property to write two multiplication sentences for the array.
S: (Write $4 \times 3 = 12$ and $3 \times 4 = 12$.)

Data, Probability, and Statistical Reasoning
3.DPSR.1 Collect and analyze data and communicate through multiple representations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.DPSR.1.1 Collect and organize categorical and numerical data based on observations, surveys, experiments, and investigations with whole number values using tables, scaled picture graphs, scaled bar graphs, or dot plots. Use titles and labels. Limit scales to multiples of 1, 2, 5, and 10.	G3 M6 Topic A: Generate and Analyze Categorical Data G3 M6 Topic B: Generate and Analyze Measurement Data G3 M7 Lesson 19: Use a line plot to record the number of rectangles constructed from a given number of unit squares. *Supplemental material is necessary to fully address this standard.*
3.DPSR.1.2 Solve one-step, real-world situations using whole number data represented in tables, scaled picture graphs, scaled bar graphs, or dot plots. Limit scales to multiples of 1, 2, 5, and 10.	G3 M6 Topic A: Generate and Analyze Categorical Data G3 M6 Topic B: Generate and Analyze Measurement Data G3 M7 Lesson 19: Use a line plot to record the number of rectangles constructed from a given number of unit squares. *Supplemental material is necessary to fully address this standard.*

Data, Probability, and Statistical Reasoning
3.DPSR.2 Represent the probability of simple events and determine possible outcomes.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.DPSR.2.1 Identify the possible outcomes of a simple event.	*Supplemental material is necessary to address this standard.*

Measurement, Geometry, and Spatial Reasoning

3.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 Math*
3.MGSR.1.1 Determine the area of squares and rectangles presented in relevant problems by covering the space with square units and counting the total number of units needed.	G3 M4 Topic A: Foundations for Understanding Area G3 M4 Lesson 5: Form rectangles by tiling with unit squares to make arrays. G3 M4 Lesson 6: Draw rows and columns to determine the area of a rectangle given an incomplete array. G3 M4 Lesson 7: Interpret area models to form rectangular arrays.
3.MGSR.1.2 Determine the perimeter of regular and irregular triangles and quadrilaterals with known side lengths.	G3 M7 Topic C: Problem Solving with Perimeter G3 M7 Topic D: Recording Perimeter and Area Data on Line Plots G3 M7 Topic E: Problem Solving with Perimeter and Area G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
3.MGSR.1.3 Determine if a real-world situation is an example of the need for finding the area or the perimeter of a figure.	*Supplemental material is necessary to address this standard.*

Measurement, Geometry, and Spatial Reasoning

3.MGSR.2 Estimate and measure using units of length, liquid volume, currency, and intervals of time.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.MGSR.2.1 Determine the value of any collection of coins, not to exceed $5. Write the amount in the form of dollars and cents using the decimal notation. Limit to penny, nickel, dime, and quarter.	G2 M7 Topic B: Problem Solving with Coins and Bills
3.MGSR.2.2 Use analog and digital clocks to tell and record time to 1-minute intervals, identifying AM and PM.	G3 M2 Topic A: Time Measurement and Problem Solving G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
3.MGSR.2.3 Solve problems involving addition and subtraction of time intervals to determine elapsed time to the nearest half hour.	G3 M2 Topic A: Time Measurement and Problem Solving
3.MGSR.2.4 Estimate and measure length/distance to the nearest half inch and nearest whole centimeter.	G2 M2 Topic A: Understand Concepts About the Ruler G2 M2 Topic B: Measure and Estimate Length Using Different Measurement Tools G3 M6 Lesson 5: Create ruler with 1-inch, $\frac{1}{2}$-inch, and $\frac{1}{4}$-inch intervals, and generate measurement data. G3 M7 Lesson 11: Tessellate to understand perimeter as the boundary of a shape. G3 M7 Lesson 12: Measure side lengths in whole number units to determine the perimeter of polygons. G3 M7 Lesson 16: Use string to measure the perimeter of various circles to the nearest quarter inch.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.MGSR.2.5 Determine which unit of liquid volume is most appropriate to measure in real-world situations. Limit to fluid ounces, cups, pints, quarts, gallons, milliliters, and liters.	G3 M2 Lesson 9: Decompose a liter to reason about the size of 1 liter, 100 milliliters, 10 milliliters, and 1 milliliter. G3 M2 Lesson 10: Estimate and measure liquid volume in liters and milliliters using the vertical number line. G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line. *Supplemental material is necessary to address fluid ounces, cups, pints, quarts, and gallons.*

Measurement, Geometry, and Spatial Reasoning
3.MGSR.3 Extend geometric reasoning to attributes of polygons and/or polyhedrons.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.MGSR.3.1 Describe and draw right, acute, obtuse, and straight angles. Identify these angle types in two-dimensional figures including triangles and quadrilaterals.	G3 M7 Topic B: Attributes of Two-Dimensional Figures G4 M4 Topic A: Lines and Angles G4 M4 Lesson 13: Analyze and classify triangles based on side length, angle measure, or both. G4 M4 Lesson 15: Classify quadrilaterals based on parallel and perpendicular lines and the presence or absence of angles of a specified size.
3.MGSR.3.2 Identify, describe, and draw points, lines, line segments, rays, intersecting lines, perpendicular lines, and parallel lines. Identify these in two-dimensional figures.	G3 M7 Topic B: Attributes of Two-Dimensional Figures G4 M4 Topic A: Lines and Angles G4 M4 Lesson 13: Analyze and classify triangles based on side length, angle measure, or both. G4 M4 Lesson 15: Classify quadrilaterals based on parallel and perpendicular lines and the presence or absence of angles of a specified size.

Numerical Reasoning

3.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 Math*
3.NR.1.1 Read, write, and represent whole numbers through the thousands period (0 to 999,999) on a number line and in standard, base ten language, word, and equations in expanded form.	G4 M1 Lesson 2: Recognize a digit represents 10 times the value of what it represents in the place to its right. G4 M1 Lesson 3: Name numbers within 1 million by building understanding of the place value chart and placement of commas for naming base thousand units. G4 M1 Lesson 4: Read and write multi-digit numbers using base ten numerals, number names, and expanded form.
3.NR.1.2 Compose and decompose 4-digit whole numbers in multiple ways using thousands, hundreds, tens, and ones.	*Supplemental material is necessary to address this standard.*
3.NR.1.3 Compare two whole numbers up to 999,999 based on the place value of the digits using the symbols for is equal to (=), is less than (<), or is greater than (>).	G4 M1 Lesson 5: Compare numbers based on meanings of the digits, using >, <, or = to record the comparison.
3.NR.1.4 Round whole numbers from 0 to 1,000 to the nearest 10 or 100.	G3 M2 Topic C: Rounding to the Nearest Ten and Hundred G3 M2 Lesson 17: Estimate sums by rounding and apply to solve measurement word problems. G3 M2 Lesson 20: Estimate differences by rounding and apply to solve measurement word problems. G3 M2 Lesson 21: Estimate sums and differences of measurements by rounding, and then solve mixed word problems. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Numerical Reasoning

3.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 Math*
3.NR.2.1 Identify unit fractions as the quantity formed by one part when a whole is partitioned into 2, 3, 4, 6, or 8 equal-sized parts. Express each part as a unit fraction of the whole.	G3 M5 Topic A: Partitioning a Whole into Equal Parts G3 M5 Topic B: Unit Fractions and their Relation to the Whole G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part. G3 M7 Topic F: Year in Review
3.NR.2.2 Represent fractions from 0 to 1 using concrete, set, area, and linear models, and write them in standard form and word form. Limit denominators to 2, 3, 4, 6, and 8.	G3 M5 Topic A: Partitioning a Whole into Equal Parts G3 M5 Topic B: Unit Fractions and their Relation to the Whole G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part. G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1. G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0. G3 M5 Lesson 30: Partition various wholes precisely into equal parts using a number line method. G3 M7 Topic F: Year in Review *Supplemental material is necessary to address representing fractions with set models.*

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.NR.2.3 Express whole numbers as fractions and identify fractions that are equivalent to whole numbers. Limit denominators to 1, 2, 3, 4, 6, and 8.	G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1. G3 M5 Lesson 16: Place whole number fractions and fractions between whole numbers on the number line. G3 M5 Lesson 17: Practice placing various fractions on the number line. G3 M5 Lesson 21: Recognize and show that equivalent fractions refer to the same point on the number line. G3 M5 Lesson 23: Generate simple equivalent fractions by using visual fraction models and the number line. G3 M5 Lesson 24: Express whole numbers as fractions and recognize equivalence with different units. G3 M5 Lesson 25: Express whole number fractions on the number line when the unit interval is 1. G3 M5 Lesson 26: Decompose whole number fractions greater than 1 using whole number equivalence with various models. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.
3.NR.2.4 Compose fractions between the whole numbers 0 and 5 using unit fractions. Record the composition as a mixed number or fraction greater than 1. Limit denominators to 2, 3, 4, 6, and 8.	G3 M5 Topic B: Unit Fractions and their Relation to the Whole G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part. G3 M5 Lesson 13: Identify a shaded fractional part in different ways depending on the designation of the whole. G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1. G3 M5 Lesson 16: Place whole number fractions and fractions between whole numbers on the number line. G3 M5 Lesson 17: Practice placing various fractions on the number line.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.NR.2.4 *continued*	G3 M5 Topic E: Equivalent Fractions G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
3.NR.2.5 Recognize two fractions are equivalent based on the same size whole. Limit denominators to 2, 3, 4, 6, and 8, and fractions should be limited to fractions between 0 and 1.	G3 M5 Topic E: Equivalent Fractions
3.NR.2.6 Compare two fractions with the same numerator or same denominator based on the same size whole by reasoning about their size. Use the symbols for is equal to (=), is less than (<), or is greater than (>). Limit denominators to 2, 3, 4, 6, and 8, and fractions should be limited to fractions between 0 and 1.	G3 M5 Lesson 10: Compare unit fractions by reasoning about their size using fraction strips. G3 M5 Lesson 11: Compare unit fractions with different-sized models representing the whole. G3 M5 Lesson 13: Identify a shaded fractional part in different ways depending on the designation of the whole. G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0. G3 M5 Lesson 19: Understand distance and position on the number line as strategies for comparing fractions. G3 M5 Lesson 28: Compare fractions with the same numerator pictorially. G3 M5 Lesson 29: Compare fractions with the same numerator using <, >, or =, and use a model to reason about their size. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.

Patterns, Algebra, and Functional Reasoning

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

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.PAFR.1.1 Use a strategy to compute sums and differences up to 1,000.	G3 M2 Lesson 4: Solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock. G3 M2 Lesson 5: Solve word problems involving time intervals within 1 hour by adding and subtracting on the number line. G3 M2 Lesson 8: Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions. G3 M2 Lesson 11: Solve mixed word problems involving all four operations with grams, kilograms, liters, and milliliters given in the same units. G3 M2 Topic D: Two- and Three-Digit Measurement Addition Using the Standard Algorithm G3 M2 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
3.PAFR.1.2 Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation.	G3 M1 Topic A: Multiplication and the Meaning of the Factors G3 M1 Topic B: Division as an Unknown Factor Problem G3 M1 Topic C: Multiplication Using Units of 2 and 3 G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

South Carolina College- and Career-Ready Mathematics Standards	**Aligned Components of *Eureka Math***
3.PAFR.1.3 Multiply two whole numbers from 0 to 10 and divide using related facts flexibly and accurately.	G3 M1 Topic C: Multiplication Using Units of 2 and 3 G3 M1 Topic E: Multiplication and Division Using Units of 4 G3 M1 Lesson 18: Apply the distributive property to decompose units. G3 M1 Lesson 19: Apply the distributive property to decompose units. G3 M3 Topic A: The Properties of Multiplication and Division G3 M3 Topic B: Multiplication and Division Using Units of 6 and 7 G3 M3 Lesson 8: Understand the function of parentheses and apply to solving problems. G3 M3 Lesson 9: Model the associative property as a strategy to multiply. G3 M3 Lesson 10: Use the distributive property as a strategy to multiply and divide. G3 M3 Lesson 12: Apply the distributive property and the fact $9 = 10 - 1$ as a strategy to multiply. G3 M3 Lesson 13: Identify and use arithmetic patterns to multiply. G3 M3 Lesson 14: Identify and use arithmetic patterns to multiply. G3 M3 Lesson 16: Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division. G3 M3 Lesson 17: Identify patterns in multiplication and division facts using the multiplication table. G3 M3 Lesson 20: Use place value strategies and the associative property $n \times (m \times 10) = (n \times m) \times 10$ (where n and m are less than 10) to multiply by multiples of 10. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Patterns, Algebra, and Functional Reasoning
3.PAFR.2 Use reasoning to represent and solve algebraic and numerical situations.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.PAFR.2.1 Determine the unknown whole number in a multiplication or division real-world situation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.	G3 M1 Topic B: Division as an Unknown Factor Problem G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M3 Lesson 3: Multiply and divide with familiar facts using a letter to represent the unknown. G3 M3 Lesson 7: Interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7. G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions. G3 M3 Lesson 21: Solve two-step word problems involving multiplying single-digit factors and multiples of 10. G3 M7 Topic A: Solving Word Problems
3.PAFR.2.2 Solve one- and two-step real-world situations using addition and subtraction up to 1,000.	G3 M2 Lesson 4: Solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock. G3 M2 Lesson 5: Solve word problems involving time intervals within 1 hour by adding and subtracting on the number line. G3 M2 Lesson 17: Estimate sums by rounding and apply to solve measurement word problems. G3 M2 Lesson 20: Estimate differences by rounding and apply to solve measurement word problems. G3 M2 Lesson 21: Estimate sums and differences of measurements by rounding, and then solve mixed word problems.

South Carolina College- and Career-Ready Mathematics Standards	Aligned Components of *Eureka Math*
3.PAFR.2.2 *continued*	G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions. G3 M7 Topic A: Solving Word Problems
3.PAFR.2.3 Identify, create, and extend numerical patterns to determine the next three terms in an addition or subtraction sequence.	G3 M3 Lesson 4: Count by units of 6 to multiply and divide using number bonds to decompose. G3 M3 Lesson 5: Count by units of 7 to multiply and divide using number bonds to decompose. G3 M3 Lesson 13: Identify and use arithmetic patterns to multiply. G4 M1 Lesson 6: Find 1, 10, and 100 thousand more and less than a given number.
3.PAFR.2.4 Recognize that a whole number is a multiple of each of its factors 1–10.	G4 M3 Lesson 24: Determine if a whole number is a multiple of another number.