EUREKA MATH™

GREAT MINDS

ABOUT *EUREKA MATH*

Created by the nonprofit Great Minds, *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

Eureka Math is the only curriculum found by EdReports.org to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses which 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

As a nonprofit, 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

GRADE 3 MATHEMATICS

The majority of the Grade 3 Minnesota Academic Standards in Mathematics are fully covered by the Grade 3 *Eureka Math* curriculum. The areas where the Grade 3 Minnesota Academic Standards in Mathematics and Grade 3 *Eureka Math* do not align will require the use of *Eureka Math* content from other grade levels or supplemental materials. A detailed analysis of alignment is provided in the table below. With strategic placement of supplemental materials, *Eureka Math* can ensure students are successful in achieving the proficiencies of the Minnesota Academic Standards in Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

Green indicates that the Minnesota standard is fully addressed in *Eureka Math*.

Yellow indicates that the Minnesota standard may not be completely addressed in *Eureka Math*.

Red indicates that the Minnesota standard is not addressed in *Eureka Math*.

Blue indicates there is a discrepancy between the grade level at which this standard is addressed in the Minnesota standards and in *Eureka Math*.

Strand	Academic Standards	Aligned Components of *Eureka Math*
Number & Operation	**Standard: Compare and represent whole numbers up to 100,000 with an emphasis on place value and equality.**	
	3.1.1.1 Read, write, and represent whole numbers up to 100,000. Representations may include numerals, expressions with operations, words, pictures, number lines, and manipulatives such as bundles of sticks and base 10 blocks.	G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction
	3.1.1.2 Use place value to describe whole numbers between 1,000 and 100,000 in terms of ten thousands, thousands, hundreds, tens, and ones.	G4 M1 Topic A: Place Value of Multi-Digit Whole Numbers G4 M3 Topic B: Multiplication by 10, 100, and 1,000 G4 M6 Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.
	3.1.1.3 Find 10,000 more or 10,000 less than a given five-digit number. Find 1,000 more or 1,000 less than a given four- or five-digit number. Find 100 more or 100 less than a given four- or five-digit number.	G2 M3 Topic G: Finding 1, 10, and 100 More or Less than a Number G2 M4 Topic A: Sums and Differences Within 100 G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten. G2 M5 Topic A: Strategies for Adding and Subtracting Within 1,000 Note: Supplemental material is necessary to completely address this standard.

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	3.1.1.4 Round numbers to the nearest 10,000, 1,000, 100, and 10. Round up and round down to estimate sums and differences.	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 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm G4 M1 Topic C: Rounding Multi-Digit Whole Numbers
	3.1.1.5 Compare and order whole numbers up to 100,000.	G4 M1 Topic A: Place Value of Multi-Digit Whole Numbers G4 M1 Topic B: Comparing Multi-Digit Whole Numbers

Strand	Academic Standards	Aligned Components of *Eureka Math*
	Standard: Add and subtract multi-digit whole numbers; represent multiplication and division in various ways; solve real-world and mathematical problems using arithmetic.	
	3.1.2.1 Add and subtract multi-digit numbers, using efficient and generalizable procedures based on knowledge of place value, including standard algorithms.	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

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	3.1.2.2 Use addition and subtraction to solve real-world and mathematical problems involving whole numbers. Use various strategies, including the relationship between addition and subtraction, the use of technology, and the context of the problem to assess the reasonableness of results.	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 Note: Supplemental material is necessary to incorporate technology.

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	3.1.2.3 Represent multiplication facts by using a variety of approaches, such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting. Represent division facts by using a variety of approaches, such as repeated subtraction, equal sharing, and forming equal groups. Recognize the relationship between multiplication and division.	G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Topic F: Distributive Property and Problem Solving Using Units of 2–5 and 10 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.
	3.1.2.4 Solve real-world and mathematical problems involving multiplication and division, including both “how many in each group” and “how many groups” division problems.	G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 G3 M7 Topic A: Solving Word Problems

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	3.1.2.5 Use strategies and algorithms based on knowledge of place value, equality, and properties of addition and multiplication to multiply a two- or three-digit number by a one-digit number. Strategies may include mental strategies, partial products, the standard algorithm, and the commutative, associative, and distributive properties.	G4 M3: Multi-Digit Multiplication and Division
	Standard: Understand meanings and uses of fractions in real-world and mathematical situations.	
	3.1.3.1 Read and write fractions with words and symbols. Recognize that fractions can be used to represent parts of a whole, parts of a set, points on a number line, or distances on a number line.	G3 M5: Fractions as Numbers on the Number Line
	3.1.3.2 Understand that the size of a fractional part is relative to the size of the whole.	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.

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	3.1.3.3 Order and compare unit fractions and fractions with like denominators by using models and an understanding of the concept of numerator and denominator.	G3 M5 Topic C: Comparing Unit Fractions and Specifying 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 Topic F: Comparison, Order, and Size of Fractions
Algebra	**Standard: Use single-operation input-output rules to represent patterns and relationships and to solve real-world and mathematical problems.**	
	3.2.1.1 Create, describe, and apply single-operation input-output rules involving addition, subtraction, and multiplication to solve problems in various contexts.	G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 Note: Supplemental material is necessary to formally introduce input-output tables.
	Standard: Use number sentences involving multiplication and division basic facts and unknowns to represent and solve real-world and mathematical problems; create real-world situations corresponding to number sentences.	
	3.2.2.1 Understand how to interpret number sentences involving multiplication and division basic facts and unknowns. Create real-world situations to represent number sentences.	G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10

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	3.2.2.2 Use multiplication and division basic facts to represent a given problem situation using a number sentence. Use number sense and multiplication and division basic facts to find values for the unknowns that make the number sentences true.	G3 M3 Topic A: The Properties of Multiplication and Division G3 M3 Topic E: Analysis of Patterns and Problem Solving Including Units of 0 and 1
Geometry & Measurement	**Standard: Use geometric attributes to describe and create shapes in various contexts.**	
	3.3.1.1 Identify parallel and perpendicular lines in various contexts, and use them to describe and create geometric shapes, such as right triangles, rectangles, parallelograms, and trapezoids.	G4 M4 Topic D: Two-Dimensional Figures and Symmetry
	3.3.1.2 Sketch polygons with a given number of sides or vertices (corners), such as pentagons, hexagons, and octagons.	G3 M7 Topic B: Attributes of Two-Dimensional Figures
	Standard: Understand perimeter as a measurable attribute of real-world and mathematical objects. Use various tools to measure distances.	
	3.3.2.1 Use half units when measuring distances.	G3 M5: Fractions as Numbers on the Number Line

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	3.3.2.2 Find the perimeter of a polygon by adding the lengths of the sides.	G3 M7: Geometry and Measurement Word Problems
	3.3.2.3 Measure distances around objects.	G3 M7: Geometry and Measurement Word Problems
	Standard: Use time, money, and temperature to solve real-world and mathematical problems.	
	3.3.3.1 Tell time to the minute, using digital and analog clocks. Determine elapsed time to the minute.	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.
	3.3.3.2 Know relationships among units of time.	G3 M2 Topic A: Time Measurement and Problem Solving
	3.3.3.3 Make change up to one dollar in several different ways, including with as few coins as possible.	G4 M6 Topic E: Money Amounts as Decimal Numbers
	3.3.3.4 Use an analog thermometer to determine temperature to the nearest degree in Fahrenheit and Celsius.	G6 M3 Lessons 2–3: Real-World Positive and Negative Numbers and Zero

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Data Analysis	**Standard: Collect, organize, display, and interpret data. Use labels and a variety of scales and units in displays.**	
	3.4.1.1 Collect, display, and interpret data using frequency tables, bar graphs, picture graphs, and number line plots having a variety of scales. Use appropriate titles, labels, and units.	G3 M6: Collecting and Displaying Data