

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

Texas Essential Knowledge and Skills for Mathematics Correlation to *Eureka Math*[™]

GRADE 3 MATHEMATICS

The majority of the Grade 3 Texas Essential Knowledge and Skills for Mathematics are fully covered by the Grade 3 *Eureka Math* curriculum. The areas where the Grade 3 Texas Essential Knowledge and Skills for 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 Texas Essential Knowledge and Skills for Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

-  Green indicates that the Texas standard is fully addressed in *Eureka Math*.
-  Yellow indicates that the Texas standard may not be completely addressed in *Eureka Math*.
-  Red indicates that the Texas 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 Texas standards and in *Eureka Math*.

Mathematical Process Standards

Aligned Components of *Eureka Math*

Mathematical Process Standards	Aligned Components of <i>Eureka Math</i>
<p>(1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>a. apply mathematics to problems arising in everyday life, society, and the workplace;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p> <p>G3 M7: Geometry and Measurement Word Problems</p>
<p>b. use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p> <p>G3 M7: Geometry and Measurement Word Problems</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*

<p>c. select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules:</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p> <p>G3 M6: Collecting and Displaying Data</p> <p>G3 M7: Geometry and Measurement Word Problems</p>
<p>d. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules:</p> <p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M2: Place Value and Problem Solving with Units of Measure</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*

<p>e. create and use representations to organize, record, and communicate mathematical ideas;</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules:</p> <p>G3 M2: Place Value and Problem Solving with Units of Measure</p> <p>G3 M4: Multiplication and Area</p> <p>G3 M5: Fractions as Numbers on the Number Line</p> <p>G3 M6: Collecting and Displaying Data</p> <p>G3 M7: Geometry and Measurement Word Problems</p>
<p>f. analyze mathematical relationships to connect and communicate mathematical ideas; and</p>	<p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules:</p> <p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M2: Place Value and Problem Solving with Units of Measure</p> <p>G3 M4: Multiplication and Area</p> <p>G3 M5: Fractions as Numbers on the Number Line</p> <p>G3 M6: Collecting and Displaying Data</p>

Mathematical Process Standards

- g. display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Aligned Components of *Eureka Math*

This process standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules:

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 M4: Multiplication and Area

G3 M5: Fractions as Numbers on the Number Line

G3 M7: Geometry and Measurement Word Problems

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Number and Operations	<p>111.5.2 The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:</p>	
	<p>a. compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate;</p>	G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction
	<p>b. describe the mathematical relationships found in the base-10 place value system through the hundred thousands place;</p>	G4 M1: Place Value, Rounding, and Algorithms for Addition and Subtraction
	<p>c. represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers; and</p>	G4 M1 Topic C: Rounding Multi-Digit Whole Numbers
	<p>d. compare and order whole numbers up to 100,000 and represent comparisons using the symbols $>$, $<$, or $=$.</p>	G4 M1 Lesson 5: Compare numbers based on meanings of the digits using $>$, $<$, or $=$ to record the comparison.

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>111.5.3 The student applies mathematical process standards to represent and explain fractional units. The student is expected to:</p>	
	<p>a. represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines;</p>	G3 M5 Topic D: Fractions on the Number Line
	<p>b. determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line;</p>	G3 M5 Topic D: Fractions on the Number Line
	<p>c. explain that the unit fraction $1/b$ represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number;</p>	<p>G3 M5 Topic B: Unit Fractions and Their Relation to the Whole</p> <p>G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part.</p>
	<p>d. compose and decompose a fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts $1/b$;</p>	G4 M5 Topic A: Decomposition and Fraction Equivalence

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	e. solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8;	G3 M5 Topic A: Partitioning a Whole into Equal Parts
	f. represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines;	G3 M5 Topic E: Equivalent Fractions
	g. explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model; and	G3 M5 Topic E: Equivalent Fractions
	h. compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models.	<p>G3 M5 Topic C: Comparing Unit Fractions and Specifying the Whole</p> <p>G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0.</p> <p>G3 M5 Lesson 19: Understand distance and position on the number line as strategies for comparing fractions.</p> <p>G3 M5 Topic F: Comparison, Order, and Size of Fractions</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>111.5.4 The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:</p>	
	<p>a. solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;</p>	<p>G3 M2 Lesson 4: Solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock.</p> <p>G3 M2 Lesson 5: Solve word problems involving time intervals within 1 hour by adding and subtracting on the number line.</p> <p>G3 M2 Lesson 8: Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions.</p> <p>G3 M2 Lesson 11: Solve mixed word problems involving all four operations with grams, kilograms, liters, and milliliters given in the same units.</p> <p>G3 M2 Topic D: Two- and Three-Digit Measurement Addition Using the Standard Algorithm</p> <p>G3 M2 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	b. round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems;	<p>G3 M2 Topic C: Rounding to the Nearest Ten and Hundred</p> <p>G3 M2 Lesson 17: Estimate sums by rounding and apply to solve measurement word problems.</p> <p>G3 M2 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm</p>
	c. determine the value of a collection of coins and bills;	G2 M7 Topic B: Problem Solving with Coins and Bills
	d. determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10;	<p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p> <p>G3 M4: Multiplication and Area</p>
	e. 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;	<p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p> <p>G3 M4: Multiplication and Area</p> <p>Note: Supplemental material is necessary to show equal jumps on a number line.</p>
	f. recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts;	<p>G3 M1 Topic E: Multiplication and Division Using Units of 4</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>g. use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;</p>	<p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p>
	<p>h. determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally;</p>	<p>G4 M3 Topic C: Multiplication of up to Four Digits by Single-Digit Numbers</p>
	<p>i. determine if a number is even or odd using divisibility rules;</p>	<p>G3 M3 Lesson 17: Identify patterns in multiplication and division facts using the multiplication table.</p>
	<p>j. determine a quotient using the relationship between multiplication and division; and</p>	<p>G3 M1 Topic B: Division as an Unknown Factor Problem</p> <p>G3 M1 Topic D: Division Using Units of 2 and 3</p> <p>G3 M1 Lesson 17: Model the relationship between multiplication and division.</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>k. solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.</p>	<p>G3 M1 Topic D: Division Using Units of 2 and 3</p> <p>G3 M1 Topic F: Distributive Property and Problem Solving Using Units of 2–5 and 10</p> <p>G3 M3 Lesson 7: Interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7.</p> <p>G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems.</p> <p>G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems.</p> <p>G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions.</p>
<p>Algebraic Reasoning</p>	<p>111.5.5 The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:</p>	
	<p>a. represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations;</p>	<p>G3 M1 Lesson 21: Solve two-step word problems involving all four operations, and assess the reasonableness of answers.</p> <p>G3 M2: Place Value and Problem Solving with Units of Measure</p> <p>G3 M3 Lesson 18: Solve two-step word problems involving all four operations, and assess the reasonableness of solutions.</p> <p>G3 M7: Geometry and Measurement Word Problems</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	<p>b. represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations;</p>	<p>G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10</p> <p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p> <p>G3 M4: Multiplication and Area</p> <p>G3 M7 Topic A: Solving Word Problems</p>
	<p>c. describe a multiplication expression as a comparison such as 3×24 represents 3 times as much as 24;</p>	<p>G4 M3: Multi-Digit Multiplication and Division</p>
	<p>d. determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product; and</p>	<p>G3 M1 Topic D: Division Using Units of 2 and 3</p> <p>G3 M1 Lesson 17: Model the relationship between multiplication and division.</p> <p>G3 M3 Lesson 3: Multiply and divide with familiar facts using a letter to represent the unknown.</p> <p>G3 M3 Topic B: Multiplication and Division Using Units of 6 and 7</p> <p>G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems.</p> <p>G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems.</p>
	<p>e. represent real-world relationships using number pairs in a table and verbal descriptions.</p>	<p>G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Geometry and Measurement	<p>111.5.6</p> <p>The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:</p>	
	<p>a. classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language;</p>	<p>GK M2 Lesson 7: Explain decisions about classification of solid shapes into categories. Name the solid shapes.</p> <p>G1 M5 Lesson 3: Find and name three-dimensional shapes including cone and rectangular prism, based on defining attributes of faces and points.</p> <p>G2 M8 Lesson 5: Relate the square to the cube, and describe the cube based on attributes.</p> <p>G3 M7 Topic B: Attributes of Two-Dimensional Figures</p>
	<p>b. use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories;</p>	<p>G3 M7 Topic B: Attributes of Two-Dimensional Figures</p>
	<p>c. determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row;</p>	<p>G3 M4: Multiplication and Area</p>

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	d. decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area; and	G3 M4: Multiplication and Area
	e. decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape.	G3 M5 Topic A: Partitioning a Whole into Equal Parts
	111.5.7 The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:	
	a. represent fractions of halves, fourths, and eighths as distances from zero on a number line;	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 30: Partition various wholes precisely into equal parts using a number line method.
	b. determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems;	G3 M7: Geometry and Measurement Word Problems

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
	c. determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes;	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.
	d. determine when it is appropriate to use measurements of liquid volume (capacity) or weight; and	G3 M2 Topic B: Measuring Weight and Liquid Volume in Metric Units
	e. determine liquid volume (capacity) or weight using appropriate units and tools.	G3 M2 Topic B: Measuring Weight and Liquid Volume in Metric Units
Data Analysis	111.5.8 The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:	
	a. summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals; and	G3 M6: Collecting and Displaying Data
	b. solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.	G3 M6: Collecting and Displaying Data

Skill	Expectations	Aligned Components of <i>Eureka Math</i>
Personal Financial Literacy	111.5.9 The student applies mathematical process standards to manage one’s financial resources effectively for lifetime financial security. The student is expected to:	
	a. explain the connection between human capital/labor and income;	<i>Eureka Math</i> does not address personal financial skills.
	b. describe the relationship between the availability or scarcity of resources and how that impacts cost;	<i>Eureka Math</i> does not address personal financial skills.
	c. identify the costs and benefits of planned and unplanned spending decisions;	<i>Eureka Math</i> does not address personal financial skills.
	d. explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower’s responsibility to pay it back to the lender, usually with interest;	<i>Eureka Math</i> does not address personal financial skills.
	e. list reasons to save and explain the benefit of a savings plan, including for college; and	<i>Eureka Math</i> does not address personal financial skills.
	f. identify decisions involving income, spending, saving, credit, and charitable giving.	<i>Eureka Math</i> does not address personal financial skills.