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 2 MATHEMATICS

The majority of the Grade 2 Oklahoma Academic Standards for Mathematics are fully covered by the Grade 2 *Eureka Math* curriculum. The areas where the Grade 2 Oklahoma Academic Standards for Mathematics and Grade 2 *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 Oklahoma Academic Standards for Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

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

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

Red indicates that the Oklahoma 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 Oklahoma standards and in *Eureka Math*.

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop a Deep and Flexible Conceptual Understanding Demonstrate a deep and flexible conceptual understanding of mathematical concepts, operations, and relations while making mathematical and real-world connections. Students will develop an understanding of how and when to apply and use the mathematics they know to solve problems.	Lessons in every module engage students in making sense of problems and persevering in solving them as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 1 and 2, which are specifically addressed in the following modules: G2 M1: Sums and Differences to 100 G2 M2: Addition and Subtraction of Length Units G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M7: Problem Solving with Length, Money, and Data G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop Accurate and Appropriate Procedural Fluency Learn efficient procedures and algorithms for computations and repeated processes based on a strong sense of numbers. Develop fluency in addition, subtraction, multiplication, and division of numbers and expressions. Students will generate a sophisticated understanding of the development and application of algorithms and procedures.	Lessons in every module engage students in reasoning abstractly and quantitatively as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 7 and 8, which are specifically addressed in the following modules: G2 M1: Sums and Differences to 100 G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop Strategies for Problem Solving Analyze the parts of complex mathematical tasks and identify entry points to begin the search for a solution. Students will select from a variety of problem solving strategies and use corresponding multiple representations (verbal, physical, symbolic, pictorial, graphical, tabular) when appropriate. They will pursue solutions to various tasks from real-world situations and applications that are often interdisciplinary in nature. They will find methods to verify their answers in context and will always question the reasonableness of solutions.	Lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 1, 2, and 8, which are specifically addressed in the following modules: G2 M1: Sums and Differences to 100 G2 M2: Addition and Subtraction of Length Units G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M7: Problem Solving with Length, Money, and Data G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop Mathematical Reasoning Explore and communicate a variety of reasoning strategies to think through problems. Students will apply their logic to critique the thinking and strategies of others to develop and evaluate mathematical arguments, including making arguments and counterarguments and making connections to other contexts.	Lessons in every module engage students in modeling with mathematics as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules: G2 M2: Addition and Subtraction of Length Units G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop a Productive Mathematical Disposition Hold the belief that mathematics is sensible, useful and worthwhile. Students will develop the habit of looking for and making use of patterns and mathematical structures. They will persevere and become resilient, effective problem solvers.	Lessons in every module engage students in using appropriate tools strategically as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 1, 7, and 8, which are specifically addressed in the following modules: G2 M1: Sums and Differences to 100 G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M7: Problem Solving with Length, Money, and Data G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop the Ability to Make Conjectures, Model, and Generalize Make predictions and conjectures and draw conclusions throughout the problem solving process based on patterns and the repeated structures in mathematics. Students will create, identify, and extend patterns as a strategy for solving and making sense of problems.	Lessons in every module engage students in attending to precision as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 4, 7, and 8, which is specifically addressed in the following modules: G2 M1: Sums and Differences to 100 G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop the Ability to Communicate Mathematically Students will discuss, write, read, interpret and translate ideas and concepts mathematically. As they progress, students' ability to communicate mathematically will include their increased use of mathematical language and terms and analysis of mathematical definitions.	Lessons in every module engage students in looking for and making use of structure as required by this standard. This Mathematical Action and Process is analogous to the CCSSM Standards for Mathematical Practice 3 and 6, which are specifically addressed in the following modules: G2 M2: Addition and Subtraction of Length Units G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000 G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M7: Problem Solving with Length, Money, and Data G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

Strand	Objectives for Mathematical Content	Aligned Components of *Eureka Math*
Number & Operations	**Standard: Compare and represent whole numbers up to 1,000 with an emphasis on place value and equality.**	
	2.N.1.1 Read, write, discuss, and represent whole numbers up to 1,000. Representations may include numerals, words, pictures, tally marks, number lines and manipulatives.	G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000
	2.N.1.2 Use knowledge of number relationships to locate the position of a given whole number on an open number line up to 100.	G2 M2 Lesson 8: Solve addition and subtraction word problems using the ruler as a number line. G2 M7 Topic E: Problem Solving with Customary and Metric Units G2 M7 Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.
	2.N.1.3 Use place value to describe whole numbers between 10 and 1,000 in terms of hundreds, tens and ones. Know that 100 is 10 tens, and 1,000 is 10 hundreds.	G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000

Strand	Objectives for Mathematical Content		Aligned Components of *Eureka Math*
	2.N.1.4 Find 10 more or 10 less than a given three-digit number. Find 100 more or 100 less than a given three-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
	2.N.1.5 Recognize when to round numbers to the nearest 10 and 100.		G2 M2: Addition and Subtraction of Length Units G2 M7 Lesson 15: Apply concepts to create inch rulers; measure lengths using inch rulers. G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units G3 M2 Topic C: Rounding to the Nearest Ten and Hundred
	2.N.1.6 Use place value to compare and order whole numbers up to 1,000 using comparative language, numbers, and symbols (e.g., 425 > 276, 73 < 107, page 351 comes after page 350, 753 is between 700 and 800).		G2 M3 Topic F: Comparing Two Three-Digit Numbers

Strand	Objectives for Mathematical Content	Aligned Components of *Eureka Math*
	Standard: Add and subtract one- and two-digit numbers in real-world and mathematical problems.	
	2.N.2.1 Use the relationship between addition and subtraction to generate basic facts up to 20.	G2 M1: Sums and Differences to 100 G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value.
	2.N.2.2 Demonstrate fluency with basic addition facts and related subtraction facts up to 20.	G2 M1: Sums and Differences to 100 G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value.
	2.N.2.3 Estimate sums and differences up to 100.	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
	2.N.2.4 Use strategies and algorithms based on knowledge of place value and equality to add and subtract two-digit numbers.	G2 M1: Sums and Differences to 100 G2 M4 Topic A: Sums and Differences Within 100 G2 M7 Topic B: Problem Solving with Coins and Bills

Strand	Objectives for Mathematical Content	Aligned Components of *Eureka Math*
	2.N.2.5 Solve real-world and mathematical addition and subtraction problems involving whole numbers up to 2 digits.	G2 M1 Lesson 5: Make a ten to add within 100. G2 M1 Lesson 8: Take from ten within 100. G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M7: Problem Solving with Length, Money, and Data
	2.N.2.6 Use concrete models and structured arrangements, such as repeated addition, arrays and ten frames to develop understanding of multiplication.	G2 M6: Foundations of Multiplication and Division
	Standard: Explore the foundational ideas of fractions.	
	2.N.3.1 Identify the parts of a set and area that represent fractions for halves, thirds, and fourths.	G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes
	2.N.3.2 Construct equal-sized portions through fair sharing including length, set, and area models for halves, thirds, and fourths.	G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division
	Standard: Determine the value of a set of coins.	
	2.N.4.1 Determine the value of a collection(s) of coins up to one dollar using the cent symbol.	G2 M7 Topic B: Problem Solving with Coins and Bills

Strand	Objectives for Mathematical Content		Aligned Components of *Eureka Math*
	2.N.4.2 Use a combination of coins to represent a given amount of money up to one dollar.		G2 M7 Topic B: Problem Solving with Coins and Bills
Algebraic Reasoning & Algebra	**Standard: Describe the relationship found in patterns to solve real-world and mathematical problems.**		
	2.A.1.1 Represent, create, describe, complete, and extend growing and shrinking patterns with quantity and numbers in a variety of real-world and mathematical contexts.		G2 M3 Topic G: Finding 1, 10, and 100 More or Less than a Number G2 M6: Foundations of Multiplication and Division G2 M8 Topic D: Application of Fractions to Tell Time
	2.A.1.2 Represent and describe repeating patterns involving shapes in a variety of contexts.		*Eureka Math* does not address patterns involving shapes.
	Standard: Use number sentences involving unknowns to represent and solve real-world and mathematical problems.		
	2.A.2.1 Use objects and number lines to represent number sentences.		G2 M7 Topic E: Problem Solving with Customary and Metric Units
	2.A.2.2 Generate real-world situations to represent number sentences and vice versa.		G2 M1: Sums and Differences to 100 G2 M2 Topic D: Relate Addition and Subtraction to Length G2 M7 Topic B: Problem Solving with Coins and Bills

Strand	Objectives for Mathematical Content	Aligned Components of *Eureka Math*
	2.A.2.3 Apply commutative and identity properties and number sense to find values for unknowns that make number sentences involving addition and subtraction true or false.	G1 M1 Topic E: The Commutative Property of Addition and the Equal Sign G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M4 Topic D: Addition of Tens or Ones to a Two-Digit Number
Geometry & Measurement	**Standard: Analyze attributes of two-dimensional figures and develop generalizations about their properties.**	
	2.GM.1.1 Recognize trapezoids and hexagons.	G2 M8 Topic A: Attributes of Geometric Shapes
	2.GM.1.2 Describe, compare, and classify two-dimensional figures according to their geometric attributes.	G2 M8 Topic A: Attributes of Geometric Shapes G2 M8 Lesson 6: Combine shapes to create a composite shape; create a new shape from composite shapes.
	2.GM.1.3 Compose two-dimensional shapes using triangles, squares, hexagons, trapezoids, and rhombi.	G2 M8 Topic B: Composite Shapes and Fraction Concepts
	2.GM.1.4 Recognize right angles and classify angles as smaller or larger than a right angle.	G2 M2 Lesson 6: Measure and compare lengths using centimeters and meters. G2 M8 Topic A: Attributes of Geometric Shapes G4 M4 Topic A: Lines and Angles

Strand	Objectives for Mathematical Content	Aligned Components of *Eureka Math*
	Standard: Understand length as a measurable attribute and explore capacity.	
	2.GM.2.1 Explain the relationship between the size of the unit of measurement and the number of units needed to measure the length of an object.	G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units G2 M7 Lesson 18: Measure an object twice using different length units and compare; relate measurement to unit size.
	2.GM.2.2 Explain the relationship between length and the numbers on a ruler by using a ruler to measure lengths to the nearest whole unit.	G2 M2: Addition and Subtraction of Length Units G2 M7 Topic C: Creating an Inch Ruler G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units
	2.GM.2.3 Explore how varying shapes and styles of containers can have the same capacity.	GK M3 Topic D: Comparison of Volume
	Standard: Tell time to the quarter hour.	
	2.GM.3.1 Read and write time to the quarter-hour on an analog and digital clock. Distinguish between a.m. and p.m.	G2 M8 Topic D: Application of Fractions to Tell Time

Strand	Objectives for Mathematical Content		Aligned Components of *Eureka Math*
Data & Probability	**Standard: Collect, organize, and interpret data.**		
	2.D.1.1 Explain that the length of a bar in a bar graph or the number of objects in a picture graph represents the number of data points for a given category.		G2 M7 Topic A: Problem Solving with Categorical Data G2 M7 Topic F: Displaying Measurement Data
	2.D.1.2 Organize a collection of data with up to four categories using pictographs and bar graphs with intervals of 1s, 2s, 5s or 10s.		G2 M7 Topic A: Problem Solving with Categorical Data
	2.D.1.3 Write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one.		G2 M7 Topic A: Problem Solving with Categorical Data
	2.D.1.4 Draw conclusions and make predictions from information in a graph.		G2 M7 Topic A: Problem Solving with Categorical Data