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 1 MATHEMATICS

The majority of the Grade 1 Texas Essential Knowledge and Skills for Mathematics are fully covered by the Grade 1 *Eureka Math* curriculum. The areas where the Grade 1 Texas Essential Knowledge and Skills for Mathematics and Grade 1 *Eureka Math* do not align will require the use of *Eureka Math* content from another grade level 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*
(1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:		
a. apply mathematics to problems arising in everyday life, society, and the workplace;		This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules: G1 M5: Identifying, Composing, and Partitioning Shapes G1 M6: Place Value, Comparison, Addition and Subtraction to 100
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;		This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules: G1 M5: Identifying, Composing, and Partitioning Shapes G1 M6: Place Value, Comparison, Addition and Subtraction to 100

Mathematical Process Standards	Aligned Components of *Eureka Math*
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;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules: G1 M4: Place Value, Comparison, Addition and Subtraction to 40 G1 M6: Place Value, Comparison, Addition and Subtraction to 100
d. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules: G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M6: Place Value, Comparison, Addition and Subtraction to 100

Mathematical Process Standards	Aligned Components of *Eureka Math*
e. create and use representations to organize, record, and communicate mathematical ideas;	This process standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules: G1 M1: Sums and Differences to 10 G1 M3: Ordering and Comparing Length Measurements as Numbers G1 M4: Place Value, Comparison, Addition and Subtraction to 40 G1 M5: Identifying, Composing, and Partitioning Shapes
f. analyze mathematical relationships to connect and communicate mathematical ideas; and	This process standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules: G1 M1: Sums and Differences to 10 G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M3: Ordering and Comparing Length Measurements as Numbers

Mathematical Process Standards	Aligned Components of *Eureka Math*
g. display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	This process standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules: G1 M3: Ordering and Comparing Length Measurements as Numbers G1 M4: Place Value, Comparison, Addition and Subtraction to 40 G1 M6: Place Value, Comparison, Addition and Subtraction to 100

Skill	Expectations		Aligned Components of *Eureka Math*
Number and Operations	**111.3.2** The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:		
	a. recognize instantly the quantity of structured arrangements;		G1 M1 Topic A: Embedded Numbers and Decompositions Note: Fluency activities are embedded throughout the year to reinforce this skill.
	b. use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones;		G1 M4 Topic A: Tens and Ones G1 M4 Lesson 23: Interpret two-digit numbers as tens and ones, including cases with more than 9 ones. G1 M6 Topic B: Numbers to 120 G2 M3 Topic A: Forming Base Ten Units of Ten, a Hundred and a Thousand G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred

Skill	Expectations		Aligned Components of *Eureka Math*
	c. use objects, pictures, and expanded and standard forms to represent numbers up to 120;		G1 M4 Lesson 1: Compare the efficiency of counting by ones and counting by tens. G1 M6 Lesson 7: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120. G1 M6 Lesson 8: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart. G1 M6 Lesson 9: Represent up to 120 objects with a written numeral.
	d. generate a number that is greater than or less than a given whole number up to 120;		G1 M6 Topic B: Numbers to 120
	e. use place value to compare whole numbers up to 120 using comparative language;		G1 M4 Topic B: Comparison of Pairs of Two-Digit Numbers G1 M6 Lesson 6: Use the symbols >, =, and < to compare quantities and numerals to 100. G2 M3 Topic F: Comparing Two Three-Digit Numbers
	f. order whole numbers up to 120 using place value and open number lines; and		G1 M4 Topic B: Comparison of Pairs of Two-Digit Numbers G1 M6 Topic B: Numbers to 120
	g. represent the comparison of two numbers to 100 using the symbols >, <, or =.		G1 M4 Topic B: Comparison of Pairs of Two-Digit Numbers G1 M6 Lesson 6: Use the symbols >, =, and < to compare quantities and numerals to 100.

Skill	Expectations		Aligned Components of *Eureka Math*
	111.3.3 The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:		
	a. use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99;		G1 M4: Place Value, Comparison, Addition and Subtraction to 40 G1 M6 Topic C: Addition to 100 Using Place Value Understanding G1 M6 Topic D: Varied Place Value Strategies for Addition to 100

Skill	Expectations	Aligned Components of *Eureka Math*
	b. use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] – 3;	G1 M1 Topic B: Counting On from Embedded Numbers G1 M1 Topic C: Addition Word Problems G1 M1 Lesson 25: Solve *add to with change unknown* math stories with addition, and relate to subtraction. Model with materials, and write corresponding number sentences. G1 M1 Topic H: Subtraction Word Problems G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M3 Lesson 9: Answer *compare with difference unknown* problems about lengths of two different objects measured in centimeters. G1 M3 Topic D: Data Interpretation G1 M4 Topic E: Varied Problem Types Within 20 G1 M6 Topic A: Comparison Word Problems
	c. compose 10 with two or more addends with and without concrete objects;	G1 M1: Sums and Differences to 10

Skill	Expectations	Aligned Components of *Eureka Math*
	d. apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;	G1 M1: Sums and Differences to 10 G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M4 Lesson 29: Add a pair of two-digit numbers with varied sums in the ones. G1 M6 Topic A: Comparison Word Problems
	e. explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences; and	G1 M1 Topic B: Counting On from Embedded Numbers G1 M1 Topic C: Addition Word Problems G1 M1 Lesson 25: Solve *add to with change unknown* math stories with addition, and relate to subtraction. Model with materials, and write corresponding number sentences. G1 M1 Topic H: Subtraction Word Problems G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M3 Lesson 9: Answer *compare with difference unknown* problems about lengths of two different objects measured in centimeters. G1 M3 Topic D: Data Interpretation G1 M4 Topic E: Varied Problem Types Within 20 G1 M6 Topic A: Comparison Word Problems

Skill	Expectations		Aligned Components of *Eureka Math*
	f. generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20.		G1 M1 Topic G: Subtraction as an Unknown Addend Problem G1 M1 Topic H: Subtraction Word Problems G1 M2 Lesson 16: Relate counting on to making ten and taking from ten. G1 M2 Lesson 19: Compare efficiency of counting on and taking from ten. G1 M2 Lesson 21: Share and critique peer solution strategies for *take from with result unknown* and *take apart with addend unknown* word problems from the teens. G1 M2 Topic C: Strategies for Solving *Change* or *Addend Unknown* Problems
	111.3.4 The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:		
	a. identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them;		G1 M6 Topic E: Coins and Their Values
	b. write a number with the cent symbol to describe the value of a coin; and		G2 M7 Topic B: Problem Solving with Coins and Bills

Skill	Expectations		Aligned Components of *Eureka Math*
	c. use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.		G1 M6 Topic E: Coins and Their Values Note: Supplemental material is necessary to make the connection between students' ability to count by twos and fives and the value of pennies and nickels.
Algebraic Reasoning	**111.3.5** The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:		
	a. recite numbers forward and backward from any given number between 1 and 120;		G1 M4 Lesson 1: Compare the efficiency of counting by ones and counting by tens. G1 M6 Lesson 7: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120. G1 M6 Lesson 8: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart. G1 M6 Lesson 9: Represent up to 120 objects with a written numeral.

Skill	Expectations	Aligned Components of *Eureka Math*
	b. skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set;	G1 M4 Lesson 1: Compare the efficiency of counting by ones and counting by tens. G2 M7 Lesson 6: Recognize the value of coins and count up to find their total value. G2 M8 Topic D: Application of Fractions to Tell Time Note: Students build fluency of skip-counting with fives and tens in a variety of fluency activities in Grades 1 and 2.
	c. use relationships to determine the number that is 10 more and 10 less than a given number up to 120;	G1 M4 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number. G1 M6 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number within 100. G2 M3 Topic G: Finding 1, 10, and 100 More or Less than a Number

Skill	Expectations	Aligned Components of *Eureka Math*
	d. represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences;	G1 M1 Topic B: Counting On from Embedded Numbers G1 M1 Topic C: Addition Word Problems G1 M1 Lesson 25: Solve *add to with change unknown* math stories with addition, and relate to subtraction. Model with materials, and write corresponding number sentences. G1 M1 Topic H: Subtraction Word Problems G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M3 Lesson 9: Answer *compare with difference unknown* problems about lengths of two different objects measured in centimeters. G1 M3 Topic D: Data Interpretation G1 M4 Topic E: Varied Problem Types Within 20 G1 M6 Topic A: Comparison Word Problems
	e. understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s);	G1 M1 Topic E: The Commutative Property of Addition and the Equal Sign G1 M2 Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions.
	f. determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation; and	G1 M2 Lesson 1: Solve word problems with three addends, two of which make ten. G1 M2 Lesson 2: Use the associative and commutative properties to make ten with three addends.

Skill	Expectations		Aligned Components of *Eureka Math*
	g. apply properties of operations to add and subtract two or three numbers.		G1 M2 Lesson 1: Solve word problems with three addends, two of which make ten. G1 M2 Lesson 2: Use the associative and commutative properties to make ten with three addends.
Geometry and Measurement	**111.3.6** The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:		
	a. classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language;		G1 M5 Topic A: Attributes of Shapes
	b. distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape;		G1 M5 Topic A: Attributes of Shapes
	c. create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons;		G1 M5 Topic A: Attributes of Shapes Note: Supplemental material is necessary to address hexagons.

Skill	Expectations		Aligned Components of *Eureka Math*
	d. identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language;		G1 M5 Topic A: Attributes of Shapes
	e. identify three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric language;		G1 M5 Lesson 3: Find and name three-dimensional shapes including cone and rectangular prism, based on defining attributes of faces and points. Note: Supplemental material is necessary to address triangular prisms.
	f. compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible;		G1 M5 Topic B: Part–Whole Relationships Within Composite Shapes
	g. partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words; and		G1 M5: Identifying, Composing, and Partitioning Shapes
	h. identify examples and non-examples of halves and fourths.		G1 M5: Identifying, Composing, and Partitioning Shapes

Skill	Expectations		Aligned Components of *Eureka Math*
	111.3.7 The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:		
	a. use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement;		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
	b. illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other;		G1 M3: Ordering and Comparing Length Measurements as Numbers
	c. measure the same object/distance with units of two different lengths and describe how and why the measurements differ;		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.
	d. describe a length to the nearest whole unit using a number and a unit; and		G1 M3: Ordering and Comparing Length Measurements as Numbers
	e. tell time to the hour and half hour using analog and digital clocks.		G1 M5 Topic D: Application of Halves to Tell Time

Skill	Expectations		Aligned Components of *Eureka Math*
Data Analysis	**111.3.8** The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:		
	a. collect, sort, and organize data in up to three categories using models/ representations such as tally marks or T-charts;		G1 M3 Topic D: Data Interpretation
	b. use data to create picture and bar-type graphs; and		G1 M3 Topic D: Data Interpretation
	c. draw conclusions and generate and answer questions using information from picture and bar-type graphs.		G1 M3 Topic D: Data Interpretation
Personal Financial Literacy	**111.3.9** The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:		
	a. define money earned as income;		*Eureka Math* does not address personal financial skills.
	b. identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs;		*Eureka Math* does not address personal financial skills.
	c. distinguish between spending and saving; and		*Eureka Math* does not address personal financial skills.
	d. consider charitable giving.		*Eureka Math* does not address personal financial skills.