

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

Utah Core Standards for Mathematics Correlation to *Eureka Math*[™]

GRADE K MATHEMATICS

The Grade K Utah Core Standards for Mathematics are fully covered by the Grade K *Eureka Math* curriculum. A detailed analysis of alignment is provided in the table below.

INDICATORS

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

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

<p>1: Make sense of problems and persevere in solving them.</p> <p>Explain the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. When a solution pathway does not make sense, look for another pathway that does. Explain connections between various solution strategies and representations. Upon finding a solution, look back at the problem to determine whether the solution is reasonable and accurate, often checking answers to problems using a different method or approach.</p>	<p>Lessons in every module engage students in making sense of problems and persevering in solving them as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p> <p>GK M6: Analyzing, Comparing, and Composing Shapes</p>
<p>2: Reason abstractly and quantitatively.</p> <p>Make sense of quantities and their relationships in problem situations. Contextualize quantities and operations by using images or stories. Decontextualize a given situation and represent it symbolically. Interpret symbols as having meaning, not just as directions to carry out a procedure. Know and flexibly use different properties of operations, numbers, and geometric objects.</p>	<p>Lessons in every module engage students in reasoning abstractly and quantitatively as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules:</p> <p>GK M1: Numbers to 10</p> <p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p> <p>GK M5: Numbers 10–20 and Counting to 100</p>

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

<p>3: Construct viable arguments and critique the reasoning of others.</p> <p>Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful questions to clarify or improve the arguments, and build on those arguments.</p>	<p>Lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules:</p> <p>GK M1: Numbers to 10</p> <p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p> <p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p> <p>GK M5: Numbers 10–20 and Counting to 100</p>
<p>4: Model with mathematics.</p> <p>Identify the mathematical elements of a situation and create a mathematical model that shows the relationships among them. Identify important quantities in a contextual situation, use mathematical models to show the relationships of those quantities, analyze the relationships, and draw conclusions. Models may be verbal, contextual, visual, symbolic, or physical.</p>	<p>Lessons in every module engage students in modeling with mathematics as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules:</p> <p>GK M1: Numbers to 10</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p> <p>GK M5: Numbers 10–20 and Counting to 100</p> <p>GK M6: Analyzing, Comparing, and Composing Shapes</p>

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

<p>5: Use appropriate tools strategically.</p> <p>Consider the tools that are available when solving a mathematical problem, whether in a real-world or mathematical context. Choose tools that are relevant and useful to the problem at hand, such as physical objects, drawings, diagrams, physical tools, technologies, or mathematical tools such as estimation or a particular strategy or algorithm.</p>	<p>Lessons in every module engage students in using appropriate tools strategically as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules:</p> <p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p>
<p>6: Attend to precision.</p> <p>Communicate precisely to others by crafting careful explanations that communicate mathematical reasoning by referring specifically to each important mathematical element, describing the relationships among them, and connecting their words clearly to representations. Calculate accurately and efficiently, and use clear and concise notation to record work.</p>	<p>Lessons in every module engage students in attending to precision as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules:</p> <p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p> <p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p> <p>GK M6: Analyzing, Comparing, and Composing Shapes</p>

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

<p>7: Look for and make use of structure.</p> <p>Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects.</p>	<p>Lessons in every module engage students in looking for and making use of structure as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 7, which is specifically addressed in the following modules:</p> <p>GK M1: Numbers to 10</p> <p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p> <p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p> <p>GK M5: Numbers 10–20 and Counting to 100</p> <p>GK M6: Analyzing, Comparing, and Composing Shapes</p>
<p>8: Look for and express regularity in repeated reasoning.</p> <p>Notice repetitions in mathematics when solving multiple related problems. Use observations and reasoning to find shortcuts or generalizations. Evaluate the reasonableness of intermediate results.</p>	<p>Lessons in every module engage students in looking for and expressing regularity in repeated reasoning as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 8, which is specifically addressed in the following modules:</p> <p>GK M1: Numbers to 10</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p>

Strand	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
Counting and Cardinality	Cluster: Know number names and the counting sequence.	
	K.CC.1 Count to 100 by ones and by tens.	GK M5 Topic D: Extend the Say Ten and Regular Count Sequence to 100
	K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	GK M1 Topic G: <i>One More</i> with Numbers 0–10 GK M5 Lesson 13: Show, count, and write to answer <i>how many</i> questions in linear and array configurations. GK M5 Topic D: Extend the Say Ten and Regular Count Sequence to 100
	K.CC.3 Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 represents a count of no objects).	GK M1 Topic D: The Concept of Zero and Working with Numbers 0–5 GK M1 Topic E: Working with Numbers 6–8 in Different Configurations GK M1 Topic F: Working with Numbers 9–10 in Different Configurations GK M5 Topic B: Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers GK M5 Lesson 14: Show, count, and write to answer <i>how many</i> questions with up to 20 objects in circular configurations.

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	Cluster: Count to tell the number of objects.	
	K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.	
	a. When counting objects, say the numbers in the standard order. Pair each quantity of objects with one and only one number, and each number with the correct quantity of objects.	GK M1: Numbers to 10 GK M6 Lesson 4: Describe the relative position of shapes using ordinal numbers.
	b. Understand that the last number said represents the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	GK M1: Numbers to 10

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	<p>c. Understand that each successive number refers to a quantity that is one greater than the previous number.</p>	<p>GK M1 Topic G: <i>One More</i> with Numbers 0–10</p> <p>GK M3 Lesson 23: Reason to identify and make a set that has 1 more.</p> <p>GK M4 Lesson 37: Add or subtract 0 to get the same number and relate to word problems wherein the same quantity that joins a set, separates.</p> <p>GK M4 Lesson 38: Add 1 to numbers 1–9 to see the pattern of <i>the next number</i> using 5-group drawings and equations.</p> <p>GK M5 Topic A: Count 10 Ones and Some Ones</p> <p>GK M5 Topic C: Decompose Numbers 11–20, and Count to Answer “How Many?” Questions in Varied Configurations</p>
	<p>K.CC.5 Use counting to answer questions about “how many.” Using a number from 1–20, count out that many objects.</p>	<p>GK M1: Numbers to 10</p> <p>GK M5: Numbers 10–20 and Counting to 100</p>
	<p>Cluster: Identify and compare quantities of objects and numerals.</p>	
	<p>K.CC.6 Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.</p>	<p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p>

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	<p>K.CC.7 Compare two numbers between 1 and 10 presented as written numerals using “greater than,” “less than,” or “equal to.”</p>	<p>GK M3 Topic F: Comparison of Sets Within 10</p> <p>GK M3 Topic G: Comparison of Numerals</p>
<p>Operations and Algebraic Thinking</p>	<p>Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</p>	
	<p>K.OA.1 Represent addition and subtraction with objects, fingers, mental images, simple drawings, or sounds.</p>	<p>GK M1 Lesson 28: Act out <i>result unknown</i> story problems without equations.</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p>
	<p>K.OA.2 Solve addition and subtraction word problems within 10. Use objects or drawings to represent the problem.</p>	<p>GK M4: Number Pairs, Addition and Subtraction to 10</p>
	<p>K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings. Record each decomposition by a drawing or equation.</p>	<p>GK M1 Topic C: Numbers to 5 in Different Configurations, Math Drawings, and Expressions</p> <p>GK M1 Lesson 14: Write numerals 1–3. Represent decompositions with materials, drawings, and equations, $3 = 2 + 1$ and $3 = 1 + 2$.</p> <p>GK M1 Lesson 16: Write numerals 1–5 in order. Answer and make drawings of decompositions with totals of 4 and 5 without equations.</p> <p>GK M3 Lesson 7: Compare objects using <i>the same as</i>.</p> <p>GK M4: Number Pairs, Addition and Subtraction to 10</p>

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	<p>K.OA.4 Make sums of 10 using any number from 1 to 9. Use objects or drawings to represent and record the answer.</p>	<p>GK M4 Lesson 39: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing.</p> <p>GK M4 Lesson 40: Find the number that makes 10 for numbers 1–9, and record each with an addition equation.</p> <p>GK M5 Lesson 10: Build a Rekenrek to 20.</p>
	<p>K.OA.5 Fluently add and subtract using numbers within 5.</p>	<p>GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5</p>
<p>Number and Operations in Base Ten</p>	<p>Cluster: Compose and decompose numbers 11–19 to gain foundations for place value.</p>	
	<p>K.NBT.1 Compose and decompose numbers from 11–19 into ten ones and some further ones. Use objects or drawings and record each composition or decomposition by a drawing or equation. Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>	<p>GK M5: Numbers 10–20 and Counting to 100</p>
<p>Measurement and Data</p>	<p>Cluster: Describe and compare measurable attributes of objects.</p>	
	<p>K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</p>	<p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p>

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	<p>K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference.</p>	<p>GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10</p>
<p>Cluster: Classify objects and count the number of objects in each category.</p>		
	<p>K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. Limit the category counts to less than or equal to 10.</p>	<p>GK M1 Topic A: Attributes of Two Related Objects GK M1 Topic B: Classify to Make Categories and Count GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes</p>
<p>Geometry</p>	<p>Cluster: Identify and describe shapes, including squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres.</p>	
	<p>K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as <i>above</i>, <i>below</i>, <i>beside</i>, <i>in front of</i>, <i>behind</i>, and <i>next to</i>.</p>	<p>GK M2 Lesson 5: Describe and communicate positions of all flat shapes using the words <i>above</i>, <i>below</i>, <i>beside</i>, <i>in front of</i>, <i>next to</i>, and <i>behind</i>. GK M2 Lesson 8: Describe and communicate positions of all solid shapes using the words <i>above</i>, <i>below</i>, <i>beside</i>, <i>in front of</i>, <i>next to</i>, and <i>behind</i>.</p>
	<p>K.G.2 Correctly name shapes regardless of their orientations or overall sizes.</p>	<p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p>

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	<p>K.G.3 Identify shapes as two-dimensional (“flat”) or three-dimensional (“solid”).</p>	GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes
	<p>Cluster: Analyze, compare, create, and compose shapes.</p>	
	<p>K.G.4 Analyze, compare, and sort two- and three-dimensional shapes and objects, in different sizes and orientations, using informal language to describe their similarities, differences, and other attributes.</p>	<p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p> <p>GK M6: Analyzing, Comparing, and Composing Shapes</p>
	<p>K.G.5 Model and create shapes from components such as sticks and clay balls.</p>	GK M6: Analyzing, Comparing, and Composing Shapes
	<p>K.G.6 Compose simple shapes to form larger shapes.</p>	GK M6: Analyzing, Comparing, and Composing Shapes