

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

Arizona Mathematics Standards Correlation to *Eureka Math*™

GRADE K MATHEMATICS

The Grade K Arizona Mathematics Standards 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 Arizona standard is fully addressed in *Eureka Math*.
-  Yellow indicates that the Arizona standard may not be completely addressed in *Eureka Math*.
-  Red indicates that the Arizona 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 Arizona standards and in *Eureka Math*.

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

1: Make sense of problems and persevere in solving them.

Mathematically proficient students explain to themselves the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. While engaging in productive struggle to solve a problem, they continually ask themselves, “Does this make sense?” to monitor and evaluate their progress and change course if necessary. Once they have a solution, they look back at the problem to determine if the solution is reasonable and accurate. Mathematically proficient students check their solutions to problems using different methods, approaches, or representations. They also compare and understand different representations of problems and different solution pathways, both their own and those of others.

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:

GK M2: Two-Dimensional and Three-Dimensional Shapes

GK M4: Number Pairs, Addition and Subtraction to 10

GK M6: Analyzing, Comparing, and Composing Shapes

2: Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. Students can contextualize and decontextualize problems involving quantitative relationships. They contextualize quantities, operations, and expressions by describing a corresponding situation. They decontextualize a situation by representing it symbolically. As they manipulate the symbols, they can pause as needed to access the meaning of the numbers, the units, and the operations that the symbols represent. Mathematically proficient students know and flexibly use different properties of operations, numbers, and geometric objects and when appropriate they interpret their solution in terms of the context.

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:

GK M1: Numbers to 10

GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10

GK M4: Number Pairs, Addition and Subtraction to 10

GK M5: Numbers 10–20 and Counting to 100

Standards for Mathematical Practice

3: Construct viable arguments and critique the reasoning of others.

Mathematically proficient students construct mathematical arguments (explain the reasoning underlying a strategy, solution, or conjecture) using concrete, pictorial, or symbolic referents. Arguments may also rely on definitions, assumptions, previously established results, properties, or structures.

Mathematically proficient students make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples.

Mathematically proficient students present their arguments in the form of representations, actions on those representations, and explanations in words (oral or written). Students critique others by affirming or questioning the reasoning of others. They can listen to or read the reasoning of others, decide whether it makes sense, ask questions to clarify or improve the reasoning, and validate or build on it. Mathematically proficient students can communicate their arguments, compare them to others, and reconsider their own arguments in response to the critiques of others.

Aligned Components of *Eureka Math*

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:

GK M1: Numbers to 10

GK M2: Two-Dimensional and Three-Dimensional Shapes

GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10

GK M5: Numbers 10–20 and Counting to 100

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

<p>4: Model with mathematics.</p> <p>Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. When given a problem in a contextual situation, they identify the mathematical elements of a situation and create a mathematical model that represents those mathematical elements and the relationships among them. Mathematically proficient students use their model to analyze the relationships and draw conclusions. They interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.</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>
<p>5: Use appropriate tools strategically.</p> <p>Mathematically proficient students consider available tools when solving a mathematical problem. They choose tools that are relevant and useful to the problem at hand. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful; recognizing both the insight to be gained and their limitations. Students deepen their understanding of mathematical concepts when using tools to visualize, explore, compare, communicate, make and test predictions, and understand the thinking of others.</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>

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

6: Attend to precision.

Mathematically proficient students clearly communicate to others using appropriate mathematical terminology, and craft explanations to convey their reasoning. When making mathematical arguments about a solution, strategy, or conjecture, they describe mathematical relationships and connect their words clearly to their representations. Mathematically proficient students understand meanings of symbols used in mathematics, calculate accurately and efficiently, label quantities appropriately, and record their work clearly and concisely.

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:

GK M2: Two-Dimensional and Three-Dimensional Shapes

GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10

GK M6: Analyzing, Comparing, and Composing Shapes

7: Look for and make use of structure.

Mathematically proficient students use structure and patterns to assist in making connections among mathematical ideas or concepts when making sense of mathematics. Students recognize and apply general mathematical rules to complex situations. They are able to compose and decompose mathematical ideas and notations into familiar relationships. Mathematically proficient students manage their own progress, stepping back for an overview and shifting perspective when needed.

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:

GK M1: Numbers to 10

GK M2: Two-Dimensional and Three-Dimensional Shapes

GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10

GK M4: Number Pairs, Addition and Subtraction to 10

GK M5: Numbers 10–20 and Counting to 100

GK M6: Analyzing, Comparing, and Composing Shapes

Standards for Mathematical Practice

Aligned Components of *Eureka Math*

8: Look for and express regularity in repeated reasoning.

Mathematically proficient students look for and describe regularities as they solve multiple related problems. They formulate conjectures about what they notice and communicate observations with precision. While solving problems, students maintain oversight of the process and continually evaluate the reasonableness of their results. This informs and strengthens their understanding of the structure of mathematics which leads to fluency.

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:

GK M1: Numbers to 10

GK M4: Number Pairs, Addition and Subtraction to 10

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
Counting and Cardinality	Cluster: Know number names and the count sequence.	
	K.CC.A.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.A.2 Count forward from a given number other than one, within the known sequence (e.g., “Starting at the number 5, count up to 11.”).	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.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0 to 20 (with 0 representing 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.

Domain

Standards for Mathematical Content

Aligned Components of *Eureka Math*

	Cluster: Count to tell the number of objects.	
	<p>K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality.</p>	
	<p>a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object (one to one correspondence).</p>	<p>GK M1: Numbers to 10 GK M6 Lesson 4: Describe the relative position of shapes using ordinal numbers.</p>
	<p>b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted (cardinality).</p>	<p>GK M1: Numbers to 10</p>
	<p>c. Understand that each successive number name refers to a quantity that is one larger (hierarchical inclusion).</p>	<p>GK M1 Topic G: <i>One More</i> with Numbers 1–10 GK M3 Lesson 23: Reason to identify and make a set that has 1 more. 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. 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. GK M5 Topic A: Count 10 Ones and Some Ones GK M5 Topic C: Decompose Numbers 11–20, and Count to Answer “How Many?” Questions in Varied Configurations</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>K.CC.B.5 Count to answer questions about “How many?” when 20 or fewer objects are arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1 to 20, count out that many objects.</p>	<p>GK M1: Numbers to 10 GK M5: Numbers 10–20 and Counting to 100</p>
	<p>Cluster: Compare numbers.</p>	
	<p>K.CC.C.6 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>
	<p>K.CC.C.7 Compare two numbers between 0 and 10 presented as written numerals.</p>	<p>GK M3 Topic F: Comparison of Sets Within 10 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.A.1 Represent addition and subtraction concretely.</p>	<p>GK M1 Lesson 28: Act out <i>result unknown</i> story problems without equations. GK M4: Number Pairs, Addition and Subtraction to 10</p>
	<p>K.OA.A.2 Solve addition and subtraction word problems and add and subtract within 10.</p>	<p>GK M4: Number Pairs, Addition and Subtraction to 10</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way (e.g., using fingers, objects, symbols, tally marks, drawings, expressions).</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>
	<p>K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number (e.g., using fingers, objects, symbols, tally marks, drawings, or equation).</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.A.5 Fluently add and subtract within 5.</p>	<p>GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
Number and Operations in Base Ten	Cluster: Work with numbers 11 to 19 to gain foundations for place value.	
	K.NBT.A.1 Compose and decompose numbers from 11 to 19 into ten ones and additional ones by using objects, drawings and/or equations. Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones (e.g., $18 = 10 + 8$).	GK M5: Numbers 10–20 and Counting to 100
	Cluster: Use place value understanding and properties of operations to add and subtract.	
	K.NBT.B.2 Demonstrate understanding of addition and subtraction within 10 using place value.	GK M4: Number Pairs, Addition and Subtraction to 10
Measurement and Data	Cluster: Describe and compare measurable attributes.	
	K.MD.A.1 Describe measurable attributes of a single object (e.g., length and weight).	GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10
	K.MD.A.2 Directly compare two objects with a measurable attribute in common to see which object has “more of” or “less of” the attribute, and describe the difference (e.g., directly compare the length of 10 cubes to a pencil and describe one as longer or shorter).	GK M3: Comparison of Length, Weight, Capacity, and Numbers to 10

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>Cluster: Classify objects and count the number of objects in each category.</p> <p>K.MD.B.3 Classify objects into given categories; count the number in each category and sort the categories by count.</p>	<p>GK M1 Topic A: Attributes of Two Related Objects</p> <p>GK M1 Topic B: Classify to Make Categories and Count</p> <p>GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes</p>
Geometry	<p>Cluster: Identify and describe shapes.</p>	
	<p>K.G.A.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.</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>.</p> <p>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.A.2 Correctly name shapes regardless of their orientation or overall size (e.g., circle, triangle, square, rectangle, rhombus, trapezoid, hexagon, cube, cone, cylinder, sphere).</p>	<p>GK M2: Two-Dimensional and Three-Dimensional Shapes</p>
	<p>K.G.A.3 Identify shapes as two-dimensional (lying in a plane, flat) or three-dimensional (solid).</p>	<p>GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes</p>

Domain	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p>Cluster: Analyze, compare, create, and compose shapes.</p>	
	<p>K.G.B.4 Analyze and compare two-dimensional and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/corners), and other attributes (e.g., having sides of equal length).</p>	<p>GK M2: Two-Dimensional and Three-Dimensional Shapes GK M6: Analyzing, Comparing, and Composing Shapes</p>
	<p>K.G.B.5 Model shapes in the world by building shapes from components (e.g., use sticks and clay balls) and drawing shapes.</p>	<p>GK M6: Analyzing, Comparing, and Composing Shapes</p>
	<p>K.G.B.6 Use simple shapes to form composite shapes.</p>	<p>GK M6: Analyzing, Comparing, and Composing Shapes</p>