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

Arizona Mathematics Standards Correlation to *Eureka Math*™

GRADE 1 MATHEMATICS

The Grade 1 Arizona Mathematics Standards are fully covered by the Grade 1 *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: G1 M5: Identifying, Composing, and Partitioning Shapes G1 M6: Place Value, Comparison, Addition and Subtraction to 100
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: 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

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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.	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: 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

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4: Model with mathematics. 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.	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: G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M6: Place Value, Comparison, Addition and Subtraction to 100
5: Use appropriate tools strategically. 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.	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: G1 M4: Place Value, Comparison, Addition and Subtraction to 40 G1 M6: Place Value, Comparison, Addition and Subtraction to 100

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: 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

Standards for Mathematical Practice	Aligned Components of *Eureka Math*
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: 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 G1 M4: Place Value, Comparison, Addition and Subtraction to 40 G1 M5: Identifying, Composing, and Partitioning Shapes
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: G1 M1: Sums and Differences to 10 G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Operations and Algebraic Thinking	**Cluster: Represent and solve problems involving addition and subtraction.**	
	1.OA.A.1 Use addition and subtraction within 20 to solve word problems with unknowns in all positions (e.g., by using objects, drawings, and/or equations with a symbol for the unknown number to represent the problem).	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
	1.OA.A.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 (e.g., by using objects, drawings, and/or equations with a symbol for the unknown number to represent the problem).	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.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Understand and apply properties of operations and the relationship between addition and subtraction.	
	1.OA.B.3 Apply properties of operations (commutative and associative properties of addition) as strategies to add and subtract through 20. (Students need not use formal terms for these properties.)	G1 M1 Topic E: The Commutative Property of Addition and the Equal Sign G1 M1 Topic F: Development of Addition Fluency Within 10 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
	1.OA.B.4 Understand subtraction as an unknown-addend problem within 20 (e.g., subtract 10 − 8 by finding the number that makes 10 when added to 8).	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

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Add and subtract within 10.	
	1.OA.C.5 Relate counting to addition and subtraction (e.g., by using counting on 2 to add 2).	G1 M1 Lesson 3: See and describe numbers of objects using *1 more* within 5-group configurations. G1 M1 Topic B: Counting On from Embedded Numbers G1 M1 Topic D: Strategies for Counting On G1 M1 Topic G: Subtraction as an Unknown Addend Problem G1 M1 Lesson 33: Model 0 less and 1 less pictorially and as subtraction number sentences. G1 M6 Topic A: Comparison Word Problems
	1.OA.C.6 Fluently add and subtract within 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

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Work with addition and subtraction equations.	
	1.OA.D.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g., Which of the following equations are true and which are false? $6 + 1 = 6 - 1$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$).	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.
	1.OA.D.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers (e.g., determine the unknown number that makes the equation true in each of the equations $8 + \_\_\_ = 11$, $5 = \_\_\_ - 3$, $6 + 6 = \_\_\_$).	G1 M1 Topic C: Addition Word Problems G1 M1 Lesson 16: Count on to find the unknown part in missing addend equations such as $6 + \_\_\_ = 9$. Answer, "How many more to make 6, 7, 8, 9, and 10?" G1 M1 Topic H: Subtraction Word Problems G1 M4 Topic E: Varied Problem Types Within 20 G1 M6 Topic A: Comparison Word Problems

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Number and Operations in Base Ten	**Cluster: Extend the counting sequence.**	
	1.NBT.A.1 Count to 120 by 1's, 2's, and 10's starting at any number less than 100. In this range, read and write numerals and represent a number of objects with a written numeral.	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.
	Cluster: Understand place value.	
	1.NBT.B.2 Understand that the two digits of a two-digit number represent groups of tens and ones. Understand the following as special cases:	
	a. 10 can be thought of as a group of ten ones—called a "ten."	G1 M2 Topic D: Varied Problems with Decompositions of Teen Numbers as 1 Ten and Some 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 Lesson 3: Use the place value chart to record and name tens and ones within a two-digit number up to 100. G1 M6 Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.

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	b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.		G1 M2 Topic D: Varied Problems with Decompositions of Teen Numbers as 1 Ten and Some Ones
	c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 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 Lesson 3: Use the place value chart to record and name tens and ones within a two-digit number up to 100.

G1 M6 Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones. |
| | **1.NBT.B.3**

Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. | | 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. |

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Use place value understanding and properties of operations to add and subtract.	
	1.NBT.C.4 Demonstrate understanding of addition within 100, connecting objects or drawings to strategies based on place value (including multiples of 10), properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written form.	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
	1.NBT.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count.	G1 M4 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number. G1 M4 Lesson 6: Use dimes and pennies as representations of tens and ones. G1 M6 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number within 100.
	1.NBT.C.6 Subtract multiples of 10 in the range of 10 to 90 (positive or zero differences), using objects or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written form.	G1 M4 Topic C: Addition and Subtraction of Tens G1 M6 Lesson 10: Add and subtract multiples of 10 from multiples of 10 to 100, including dimes.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Measurement and Data	**Cluster: Measure lengths indirectly and by iterating length units.**	
	1.MD.A.1 Order three objects by length. Compare the lengths of two objects indirectly by using a third object.	G1 M3 Topic A: Indirect Comparison in Length Measurement G1 M3 Lesson 6: Order, measure, and compare the length of objects before and after measuring with centimeter cubes, solving *compare with difference unknown* word problems.
	1.MD.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. (Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.)	G1 M3: Ordering and Comparing Length Measurements as Numbers
	Cluster: Work with time and money.	
	1.MD.B.3a Tell and write time in hours and half-hours using analog and digital clocks.	G1 M5 Topic D: Application of Halves to Tell Time
	1.MD.B.3b Identify coins by name and value (pennies, nickels, dimes, and quarters).	G1 M4 Lesson 6: Use dimes and pennies as representations of tens and ones. G1 M6 Topic E: Coins and Their Values

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Represent and interpret data.	
	1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	G1 M3 Topic D: Data Interpretation
Geometry	**Cluster: Reason with shapes and their attributes.**	
	1.G.A.1 Distinguish between defining attributes (triangles are closed and 3 sided) versus non-defining attributes (color, orientation, overall size) for two-dimensional shapes; build and draw shapes that possess defining attributes.	G1 M5 Topic A: Attributes of Shapes
	1.G.A.2 Compose two-dimensional shapes or three-dimensional shapes to create a composite shape.	G1 M5 Topic B: Part–Whole Relationships Within Composite Shapes
	1.G.A.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters. Describe the whole as two of, or four of the shares. Understand that decomposing into more equal shares creates smaller shares.	G1 M5: Identifying, Composing, and Partitioning Shapes