

## 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](http://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](http://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](http://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*™

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## GRADE 2 MATHEMATICS

The Grade 2 Utah Core Standards for Mathematics are fully covered by the Grade 2 *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><b>1: Make sense of problems and persevere in solving them.</b></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>G2 M4: Addition and Subtraction Within 200 with Word Problems to 100</p> <p>G2 M7: Problem Solving with Length, Money, and Data</p> <p>G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes</p>
<p><b>2: Reason abstractly and quantitatively.</b></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>G2 M1: Sums and Differences to 100</p> <p>G2 M2: Addition and Subtraction of Length Units</p> <p>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</p> <p>G2 M4: Addition and Subtraction Within 200 with Word Problems to 100</p> <p>G2 M7: Problem Solving with Length, Money, and Data</p>

## Standards for Mathematical Practice

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

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.

## 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:

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

## Standards for Mathematical Practice

## Aligned Components of *Eureka Math*

<p><b>4: Model with mathematics.</b></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>G2 M4: Addition and Subtraction Within 200 with Word Problems to 100</p> <p>G2 M6: Foundations of Multiplication and Division</p> <p>G2 M7: Problem Solving with Length, Money, and Data</p>
<p><b>5: Use appropriate tools strategically.</b></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>G2 M1: Sums and Differences to 100</p> <p>G2 M2: Addition and Subtraction of Length Units</p> <p>G2 M7: Problem Solving with Length, Money, and Data</p>

## Standards for Mathematical Practice

## Aligned Components of *Eureka Math*

### **6: Attend to precision.**

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.

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:

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 M7: Problem Solving with Length, Money, and Data

G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes

## Standards for Mathematical Practice

## Aligned Components of *Eureka Math*

### **7: Look for and make use of structure.**

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.

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:

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

## Standards for Mathematical Practice

## Aligned Components of *Eureka Math*

### **8: Look for and express regularity in repeated reasoning.**

Notice repetitions in mathematics when solving multiple related problems. Use observations and reasoning to find shortcuts or generalizations. Evaluate the reasonableness of intermediate results.

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:

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



Strand	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
<b>Operations and Algebraic Thinking</b>	<b>Cluster: Represent and solve problems involving addition and subtraction.</b>	
	<p><b>2.OA.1</b></p> <p>Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions.</p>	<p>G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100</p> <p>G2 M1 Lesson 5: Make a ten to add within 100.</p> <p>G2 M1 Lesson 8: Take from 10 within 100.</p> <p>G2 M4 Lesson 31: Solve two-step word problems within 100.</p> <p>G2 M6 Lesson 9: Solve word problems involving addition of equal groups in rows and columns.</p>
	<b>Cluster: Fluently add and subtract within 20.</b>	
	<p><b>2.OA.2</b></p> <p>Fluently add and subtract within 20.</p>	
	<p>a. Add and subtract within 20 using mental strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.</p>	<p>G2 M1: Sums and Differences to 100</p> <p>G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value.</p> <p>G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value.</p>
<p>b. By the end of Grade 2, know from memory all sums of two one-digit numbers.</p>	<p>Fluency activities address addition and subtraction within 20 throughout the year.</p>	

Strand	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<b>Cluster: Work with equal groups of objects to gain foundations for multiplication.</b>	
	<p><b>2.OA.3</b> Determine whether a group of objects (up to 20) has an odd or even number of members. Write an equation to express an even number as a sum of two equal addends.</p>	G2 M6 Topic D: The Meaning of Even and Odd Numbers
	<p><b>2.OA.4</b> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</p>	G2 M6: Foundations of Multiplication and Division
<b>Number and Operations in Base Ten</b>	<b>Cluster: Understand place value.</b>	
	<p><b>2.NBT.1</b> Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. Understand the following as special cases:</p>	
	<p>a. 100 can be thought of as a bundle of ten tens called a “hundred.”</p>	G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000
	<p>b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p>	G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000

Strand	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p><b>2.NBT.2</b> Count within 1,000; skip-count by fives, tens, and hundreds.</p>	<p>G2 M3: Place Value, Counting, and Comparison of Numbers to 1,000</p>
	<p><b>2.NBT.3</b> Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.</p>	<p>G2 M3 Topic C: Three-Digit Numbers in Unit, Standard, Expanded, and Word Forms</p> <p>G2 M3 Topic E: Modeling Numbers Within 1,000 with Place Value Disks</p> <p>G2 M3 Topic F: Comparing Two Three-Digit Numbers</p>
	<p><b>2.NBT.4</b> Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p>	<p>G2 M3 Topic F: Comparing Two Three-Digit Numbers</p>
<p><b>Cluster: Use place value understanding and properties of operations to add and subtract.</b></p>		
	<p><b>2.NBT.5</b> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p>G2 M1: Sums and Differences to 100</p> <p>G2 M4 Topic A: Sums and Differences Within 100</p> <p>G2 M7 Topic B: Problem Solving with Coins and Bills</p>
	<p><b>2.NBT.6</b> Add up to four two-digit numbers using strategies based on place value and properties of operations.</p>	<p>G2 M4 Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units.</p>

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	<p><b>2.NBT.7</b> Add and subtract within 1,000 using concrete models 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 method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, and ones and ones, and that it is sometimes necessary to compose or decompose tens or hundreds.</p>	<p>G2 M4: Addition and Subtraction Within 200 with Word Problems to 100</p> <p>G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100</p>
	<p><b>2.NBT.8</b> Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.</p>	<p>G2 M3 Topic G: Finding 1, 10, and 100 More or Less than a Number</p> <p>G2 M4 Topic A: Sums and Differences Within 100</p> <p>G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten.</p> <p>G2 M5 Topic A: Strategies for Adding and Subtracting Within 1,000</p>
	<p><b>2.NBT.9</b> Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.</p>	<p>G2 M4: Addition and Subtraction Within 200 with Word Problems to 100</p> <p>G2 M5: Addition and Subtraction Within 1,000 with Word Problems to 100</p>

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<b>Measurement and Data</b>	<b>Cluster: Measure and estimate lengths in standard units.</b>	
	<p><b>2.MD.1</b> Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p>	<p>G2 M2: Addition and Subtraction of Length Units</p> <p>G2 M7 Topic C: Creating an Inch Ruler</p> <p>G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units</p>
	<p><b>2.MD.2</b> Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</p>	<p>G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units</p> <p>G2 M7 Lesson 18: Measure an object twice using different length units and compare; relate measurement to unit size.</p>
	<p><b>2.MD.3</b> Estimate lengths using units of inches, feet, centimeters, and meters.</p>	<p>G2 M2 Topic B: Measure and Estimate Length Using Different Measurement Tools</p> <p>G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units</p>
	<p><b>2.MD.4</b> Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</p>	<p>G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units</p> <p>G2 M2 Lesson 9: Measure lengths of string using measurement tools, and use tape diagrams to represent and compare the lengths.</p> <p>G2 M7 Lesson 19: Measure to compare the differences in lengths using inches, feet, and yards.</p>

**Strand****Standards for Mathematical Content****Aligned Components of *Eureka Math***

Strand	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
<b>Cluster: Relate addition and subtraction to length.</b>		
	<p><b>2.MD.5</b> Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units.</p>	<p>G2 M2 Topic D: Relate Addition and Subtraction to Length</p> <p>G2 M7 Lesson 20: Solve two-digit addition and subtraction word problems involving length by using tape diagrams and writing equations to represent the problem.</p>
	<p><b>2.MD.6</b> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2 .... Represent whole-number sums and differences within 100 on a number line diagram.</p>	<p>G2 M2 Lesson 8: Solve addition and subtraction word problems using the ruler as a number line.</p> <p>G2 M7 Topic E: Problem Solving with Customary and Metric Units</p> <p>G2 M7 Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.</p>
<b>Cluster: Work with time and money.</b>		
	<p><b>2.MD.7</b> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</p>	<p>G2 M8 Topic D: Application of Fractions to Tell Time</p>
	<p><b>2.MD.8</b> Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.</p>	<p>G2 M7 Topic B: Problem Solving with Coins and Bills</p>

Strand	Standards for Mathematical Content	Aligned Components of <i>Eureka Math</i>
	<p><b>Cluster: Represent and interpret data.</b></p>	
	<p><b>2.MD.9</b> Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.</p>	<p>G2 M7 Topic F: Displaying Measurement Data</p>
	<p><b>2.MD.10</b> Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and comparison problems using information presented in a bar graph.</p>	<p>G2 M7 Topic A: Problem Solving with Categorical Data</p>
<p><b>Geometry</b></p>	<p><b>Cluster: Reason with shapes and their attributes.</b></p>	
	<p><b>2.G.1</b> Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Sizes are compared directly or visually, not compared by measuring. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p>	<p>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.</p>

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	<p><b>2.G.2</b> Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares.</p>	G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division
	<p><b>2.G.3</b> Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words <i>halves</i>, <i>thirds</i>, <i>half of</i>, <i>a third of</i>, etc.; and describe the whole as two halves, three thirds, or four fourths. Recognize that equal shares of identical wholes need not have the same shape.</p>	G2 M8: Time, Shapes, and Fractions as Equal Parts of Shapes