Grade 2 | Alaska Mathematics Standards Correlation to *Eureka Math²*®

When the original *Eureka Math*® curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher-writers have created *Eureka Math²*®, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math²* carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

Eureka Math² employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

Eureka Math² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math²* teacher-writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math²* add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Standards for Mathematical Practice	Aligned Components of *Eureka Math²*
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.2 Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.3 Construct viable arguments and critique the reasoning of others.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.4 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.6 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 Look for and make use of structure.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.8 Look for and express regularity in repeated reasoning.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.

Operations and Algebraic Thinking
Represent and solve problems involving addition and subtraction.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.OA.1 Use addition and subtraction strategies to estimate, then solve one- and two-step word problems (using numbers up to 100) involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions (e.g., by using objects, drawings and equations). Record and explain using equation symbols and a symbol for the unknown number to represent the problem.	2 M1 Lesson 22: Use counting strategies to solve *add to with change unknown* word problems. 2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition. 2 M2 Lesson 13: Represent and solve *take from* word problems. 2 M2 Lesson 19: Solve word problems with simplifying strategies for subtraction. 2 M2 Lesson 26: Solve *add to* and *take from with start unknown* word problems. 2 M2 Lesson 27: Solve two-step word problems within 100. 2 M4 Lesson 3: Solve multi-step word problems and reason about equal expressions. 2 M4 Lesson 4: Represent and solve *compare with bigger unknown* word problems. 2 M4 Lesson 22: Solve *compare with smaller unknown* word problems. 2 M4 Lesson 23: Solve two-step addition and subtraction word problems. 2 M6 Lesson 1: Compose equal groups and write repeated addition equations. 2 M6 Lesson 4: Represent equal groups with a tape diagram. 2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.

Operations and Algebraic Thinking
Add and subtract using numbers up to 20.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.OA.2 Fluently add and subtract using numbers up to 20 using mental strategies. Know from memory all sums of two one-digit numbers.	2 M4 Lesson 7: Use concrete models to add and relate them to written recordings. 2 M4 Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1. 2 M4 Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.OA.2 *continued*	2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.
	2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.
	2 M4 Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000
	2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.

Operations and Algebraic Thinking

Work with equal groups of objects to gain foundations for multiplication.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.OA.3 Determine whether a group of objects (up to 20) is odd or even (e.g., by pairing objects and comparing, counting by 2s). Model an even number as two equal groups of objects and then write an equation as a sum of two equal addends.	2 M6 Topic B: Arrays and Equal Groups 2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division 2 M6 Lesson 14: Relate doubles to even numbers and write equations to express the sums. 2 M6 Lesson 15: Pair objects and skip-count to determine whether a number is even or odd. 2 M6 Lesson 16: Use rectangular arrays to investigate combinations of even and odd numbers. 2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.
2.OA.4 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 repeated addition (e.g., array of 4 by 5 would be $5 + 5 + 5 + 5 = 20$).	2 M6 Topic A: Count and Problem Solve with Equal Groups 2 M6 Topic B: Arrays and Equal Groups 2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division 2 M6 Lesson 17: Solve word problems that involve equal groups and arrays.

Operations and Algebraic Thinking
Identify and continue patterns.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.OA.5 Identify, continue and label number patterns (e.g., aabb, abab). Describe a rule that determines and continues a sequence or pattern.	*Supplemental material is necessary to address this standard.*

Number and Operations in Base Ten
Understand place value.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.NBT.1 Model and identify place value positions of three digit numbers. Include:	2 M1 Lesson 24: Count up to 1,000 by using place value units. 2 M1 Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents. 2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms. 2 M1 Lesson 28: Use place value understanding to count and exchange $1, $10, and $100 bills. 2 M1 Lesson 30: Determine how many $10 bills are equal to $1,000. 2 M1 Topic H: Compose and Decompose with Place Value Disks
2.NBT.1.a 100 can be thought of as a bundle of ten tens—called a "hundred."	2 M1 Lesson 20: Count and bundle ones, tens, and hundreds to 1,000. 2 M1 Lesson 23: Organize, count, and record a collection of objects. 2 M1 Lesson 28: Use place value understanding to count and exchange $1, $10, and $100 bills. 2 M1 Lesson 30: Determine how many $10 bills are equal to $1,000. 2 M1 Lesson 32: Exchange 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. 2 M1 Lesson 34: Problem solve in situations with more than 9 ones or 9 tens.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.NBT.1.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).	2 M1 Lesson 24: Count up to 1,000 by using place value units. 2 M1 Lesson 25: Write three-digit numbers in unit form and show the value that each digit represents. 2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms. 2 M1 Lesson 28: Use place value understanding to count and exchange $1, $10, and $100 bills. 2 M1 Lesson 30: Determine how many $10 bills are equal to $1,000. 2 M1 Topic H: Compose and Decompose with Place Value Disks
2.NBT.2 Count up to 1,000, skip-count by 5s, 10s and 100s.	2 M1 Lesson 21: Count efficiently within 1,000 by using ones, tens, and hundreds. 2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems. 2 M1 Lesson 23: Organize, count, and record a collection of objects. 2 M1 Lesson 24: Count up to 1,000 by using place value units. 2 M1 Lesson 29: Count by $1, $10, and $100. 2 M1 Lesson 30: Determine how many $10 bills are equal to $1,000. 2 M1 Lesson 37: Organize, count, represent, and compare a collection of objects. 2 M3 Lesson 17: Relate the clock to a number line to count by fives. 2 M3 Lesson 18: Tell time to the nearest 5 minutes.
2.NBT.3 Read, write, order up to 1,000 using base-ten numerals, number names and expanded form.	2 M1 Lesson 23: Organize, count, and record a collection of objects. 2 M1 Lesson 26: Write base-ten numbers in expanded form. 2 M1 Lesson 27: Read, write, and relate base-ten numbers in all forms. 2 M1 Lesson 31: Count the total value of ones, tens, and hundreds with place value disks. 2 M1 Lesson 38: Compare numbers in different forms.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.NBT.4 Compare two three-digit numbers based on the meanings of the hundreds, tens and ones digits, using >, =, < symbols to record the results.	2 M1 Topic I: Compare Two Three-Digit Numbers in Different Forms

Number and Operations in Base Ten
Use place value understanding and properties of operations to add and subtract.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.NBT.5 Fluently add and subtract using numbers up to 100. Use: • strategies based on place value • properties of operations • and/or the relationship between addition and subtraction.	2 M4 Lesson 4: Represent and solve *compare with bigger unknown* word problems. 2 M4 Lesson 5: Use the associative property to make a benchmark number to add within 1,000. 2 M4 Lesson 6: Use compensation to add within 1,000. 2 M4 Lesson 10: Choose and defend efficient solution strategies for addition. 2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers. 2 M4 Lesson 12: Take from a ten or a hundred to subtract. 2 M4 Lesson 13: Use compensation to subtract within 1,000. 2 M4 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy. 2 M4 Lesson 22: Solve *compare with smaller unknown* word problems. 2 M4 Lesson 23: Solve two-step addition and subtraction word problems. 2 M6 Lesson 18: Use various strategies to fluently add and subtract within 100 and know all sums and differences within 20 from memory.
2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	2 M2 Lesson 1: Reason about addition with four addends. 2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.NBT.7 Add and subtract using numbers up to 1,000. Use: • concrete models or drawings and strategies based on place value • properties of operations • and/or relationship between addition and subtraction. Relate the strategy to a written method and explain the reasoning used. Demonstrate in adding or subtracting three-digit numbers, hundreds and hundreds are added or subtracted, tens and tens are added or subtracted, ones and ones are added or subtracted and sometimes it is necessary to compose a ten from ten ones or a hundred from ten tens.	2 M2 Lesson 2: Break apart and add like units. 2 M2 Lesson 3: Use compensation to add within 100. 2 M2 Lesson 4: Use compensation to add within 200. 2 M2 Lesson 5: Make a ten to add within 100. 2 M2 Lesson 6: Make a ten to add within 200. 2 M2 Lesson 7: Solve word problems by using simplifying strategies for addition. 2 M2 Topic B: Strategies for Composing a Ten and a Hundred to Add 2 M2 Lesson 14: Use addition and subtraction strategies to find an unknown part. 2 M2 Lesson 15: Use compensation to subtract within 100. 2 M2 Lesson 16: Use compensation to subtract within 200. 2 M2 Lesson 17: Take from a ten to subtract within 200. 2 M2 Lesson 18: Take from a hundred to subtract within 200. 2 M2 Lesson 19: Solve word problems with simplifying strategies for subtraction. 2 M2 Lesson 20: Reason about when to unbundle a ten to subtract. 2 M2 Lesson 21: Use concrete models to decompose a ten with two-digit totals. 2 M2 Lesson 22: Use place value drawings to decompose a ten and relate them to written recordings. 2 M2 Lesson 23: Use concrete models and drawings to decompose a hundred. 2 M2 Lesson 24: Use place value drawings to decompose a hundred and relate them to written recordings. 2 M2 Lesson 25: Use place value drawings to subtract with two decompositions.

Alaska Mathematics Standards	**Aligned Components of *Eureka Math²***
2.NBT.7 *continued*	2 M4 Lesson 5: Use the associative property to make a benchmark number to add within 1,000.
	2 M4 Lesson 6: Use compensation to add within 1,000.
	2 M4 Lesson 7: Use concrete models to add and relate them to written recordings.
	2 M4 Lesson 8: Use place value drawings to represent addition and relate them to written recordings, part 1.
	2 M4 Lesson 9: Use place value drawings to represent addition and relate them to written recordings, part 2.
	2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.
	2 M4 Topic C: Simplifying Strategies for Subtracting Within 1,000
	2 M4 Topic D: Strategies for Decomposing Tens and Hundreds Within 1,000
	2 M4 Lesson 21: Apply strategies to find sums and differences and relate addition to subtraction.
	2 M4 Lesson 24: Organize, count, and represent a collection of objects.
2.NBT.8 Mentally add 10 or 100 to a given number 100–900 and mentally subtract 10 or 100 from a given number.	2 M4 Lesson 1: Organize, count, and represent a collection of objects.
	2 M4 Lesson 2: Mentally add and subtract multiples of 10 and 100 with unknowns in various positions.
	2 M4 Lesson 3: Solve multi-step word problems and reason about equal expressions.
2.NBT.9 Explain or illustrate the processes of addition or subtraction and their relationship using place value and the properties of operations.	2 M4 Lesson 5: Use the associative property to make a benchmark number to add within 1,000.
	2 M4 Lesson 6: Use compensation to add within 1,000.
	2 M4 Lesson 10: Choose and defend efficient solution strategies for addition.
	2 M4 Lesson 11: Choose and defend efficient strategies to add up to four two-digit numbers.
	2 M4 Topic C: Simplifying Strategies for Subtracting Within 1,000
	2 M4 Lesson 20: Subtract by using multiple strategies and defend an efficient strategy.
	2 M4 Lesson 21: Apply strategies to find sums and differences and relate addition to subtraction.

Measurement and Data
Measure and estimate lengths in standard units.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.MD.1 Measure the length of an object by selecting and using standard tools such as rulers, yardsticks, meter sticks, and measuring tapes.	2 M1 Lesson 5: Connect measurement to physical units by iterating a centimeter cube. 2 M1 Lesson 6: Make a 10 cm ruler and measure objects. 2 M1 Lesson 7: Measure lengths and relate 10 cm and 1 cm. 2 M1 Lesson 8: Make a meter stick and measure with various tools. 2 M1 Lesson 13: Estimate and measure height to model metric relationships. 2 M5 Lesson 8: Iterate an inch tile to create a unit ruler and measure to the nearest inch. 2 M5 Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.
2.MD.2 Measure the length of an object twice using different length units for the two measurements. Describe how the two measurements relate to the size of the unit chosen.	2 M5 Lesson 10: Measure an object twice by using different length units and compare and relate measurement to unit size.
2.MD.3 Estimate, measure and draw lengths using whole units of inches, feet, yards, centimeters and meters.	2 M1 Lesson 11: Estimate and compare lengths. 2 M1 Lesson 13: Estimate and measure height to model metric relationships. 2 M5 Lesson 9: Use an inch ruler and a yard stick to estimate and measure the length of various objects.
2.MD.4 Measure to compare lengths of two objects, expressing the difference in terms of a standard length unit.	2 M1 Lesson 11: Estimate and compare lengths. 2 M1 Lesson 12: Model and reason about the difference in length. 2 M1 Lesson 14: Represent and compare students' heights. 2 M5 Lesson 11: Measure to compare differences in lengths.

Measurement and Data
Relate addition and subtraction to length.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.MD.5 Solve addition and subtraction word problems using numbers up to 100 involving length that are given in the same units (e.g., by using drawings of rulers). Write an equation with a symbol for the unknown to represent the problem.	2 M1 Lesson 17: Represent and solve comparison problems by using measurement contexts. 2 M1 Lesson 18: Solve *compare with difference unknown* word problems by using measurement contexts. 2 M1 Lesson 19: Solve *compare with difference unknown* word problems in various contexts. 2 M5 Lesson 13: Solve word problems that involve measurements and reason about estimates. 2 M5 Lesson 14: Solve addition and subtraction two-step word problems that involve length.
2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.	2 M1 Topic D: Solve *Compare* Problems by Using the Ruler as a Number Line 2 M5 Lesson 12: Identify unknown numbers on a number line by using the interval as a reference point.

Measurement and Data
Work with time and money.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.MD.7 Tell and write time to the nearest five minutes using a.m. and p.m. from analog and digital clocks.	2 M3 Lesson 14: Distinguish between a.m. and p.m. 2 M3 Lesson 16: Use a clock to tell time to the half hour or quarter hour. 2 M3 Lesson 17: Relate the clock to a number line to count by fives. 2 M3 Lesson 18: Tell time to the nearest 5 minutes.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.MD.8 Solve word problems involving dollar bills and coins using the $ and ¢ symbols appropriately.	2 M5 Topic A: Problem Solving with Coins and Bills

Measurement and Data
Represent and interpret data.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.MD.9 Collect, record, interpret, represent, and describe data in a table, graph or line plot.	2 M5 Lesson 15: Use measurement data to create a line plot. 2 M5 Lesson 16: Create a line plot to represent data and ask and answer questions.
2.MD.10 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 compare problems using information presented in a bar graph.	2 M1 Topic A: Represent Data to Solve Problems

Geometry
Reason with shapes and their attributes.

Alaska Mathematics Standards	Aligned Components of *Eureka Math²*
2.G.1 Identify and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces compared visually, not by measuring. Identify triangles, quadrilaterals, pentagons, hexagons and cubes.	2 M3 Topic A: Attributes of Geometric Shapes 2 M3 Lesson 6: Recognize that a whole polygon can be decomposed into smaller parts and the parts can be composed to make a whole. 2 M3 Lesson 7: Combine shapes to create a composite shape and create a new shape from composite shapes.
2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	2 M6 Lesson 11: Decompose an array to find the total efficiently. 2 M6 Lesson 12: Reason about how equal arrays can be composed differently. 2 M6 Lesson 13: Decompose an array and relate it to a number bond.
2.G.3 Partition circles and rectangles into shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths. 2 M3 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths. 2 M3 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles