Grade 2 | Mathematics Standards of Learning for Virginia Public Schools
Correlation to *Eureka Math*®

About *Eureka Math*

Created by Great Minds®, a mission-driven Public Benefit Corporation, *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

Great Minds offers detailed analyses that 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

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

Mathematical Process Goals for Students	Aligned Components of *Eureka Math*
Mathematical Problem Solving	Lessons in every module engage students in mathematical processes.
Mathematical Communication	
Mathematical Reasoning	
Mathematical Connections	
Mathematical Representations	

Number and Number Sense
2.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to 200.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.1.a Represent forward counting patterns when counting by groups of 2 up to at least 50, starting at various multiples of 2 and using a variety of tools (e.g., objects, number lines, hundreds charts).	G2 M6 Lesson 18: Pair objects and skip-count to relate to even numbers. G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. *Supplemental material is necessary to fully address this standard.*
2.NS.1.b Represent forward counting patterns created when counting by groups of 5s, 10s, and 25s starting at various multiples up to at least 200 using a variety of tools (e.g., objects, number lines, hundreds charts).	G2 M3 Lesson 1: Bundle and count ones, tens, and hundreds to 1,000. G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. G2 M7 Lesson 6: Recognize the value of coins and count up to find their total value. G3 M2 Lesson 2: Relate skip-counting by fives on the clock and telling time to a continuous measurement model, the number line. G3 M2 Lesson 3: Count by fives and ones on the number line as a strategy to tell time to the nearest minute on the clock.
2.NS.1.c Describe and use patterns in skip counting by multiples of 2 (to at least 50), and multiples of 5, 10, and 25 (to at least 200) to justify the next number in the counting sequence.	G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number G2 M6 Lesson 18: Pair objects and skip-count to relate to even numbers. G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. *Supplemental material is necessary to fully address this standard.*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.1.d Represent forward counting patterns when counting by groups of 100 up to at least 1,000 starting at 0 using a variety of tools (e.g., objects, number lines, calculators, one thousand charts).	G2 M3 Lesson 1: Bundle and count ones, tens, and hundreds to 1,000. G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number
2.NS.1.e Represent backward counting patterns when counting by groups of 10 from 200 or less using a variety of tools including objects, number lines, calculators, and hundreds charts.	G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number *Supplemental material is necessary to fully address this standard.*
2.NS.1.f Describe and use patterns in skip counting backwards by 10s (from at least 200) to justify the next number in the counting sequence.	G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number *Supplemental material is necessary to fully address this standard.*
2.NS.1.g Choose a reasonable estimate up to 1,000 when given a contextual problem (e.g., What would be the best estimate for the number of students in our school—5, 50, or 500?).	*Supplemental material is necessary to address this standard.*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.1.h Represent even numbers (up to 50) with concrete objects, using two equal groups or two equal addends.	G2 M6 Lesson 17: Relate doubles to even numbers, and write number sentences to express the sums. G2 M6 Lesson 18: Pair objects and skip-count to relate to even numbers. *Supplemental material is necessary to fully address even numbers up to* 50.
2.NS.1.i Represent odd numbers (up to 50) with concrete objects, using two equal groups with one leftover or two equal addends plus 1.	G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. G2 M6 Lesson 20: Use rectangular arrays to investigate odd and even numbers.
2.NS.1.j Determine whether a number (up to 50) is even or odd using concrete objects and justify reasoning (e.g., dividing collections of objects into two equal groups, pairing objects).	G2 M6 Topic D: The Meaning of Even and Odd Numbers

Number and Number Sense

2.NS.2 The student will demonstrate an understanding of the ten-to-one relationships of the base 10 number system to represent, compare, and order whole numbers up to 999.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.2.a Write the three-digit whole number represented by a given model (e.g., concrete objects, pictures of base 10 blocks).	G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 13: Read and write numbers within 1,000 after modeling with place value disks.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.2.b Read, write, and represent three-digit numbers in standard form, expanded form, and word form, using concrete or pictorial representations.	G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 6: Write base ten numbers in expanded form. G2 M3 Lesson 7: Write, read, and relate base ten numbers in all forms. G2 M3 Lesson 11: Count the total value of ones, tens, and hundreds with place value disks. G2 M3 Lesson 13: Read and write numbers within 1,000 after modeling with place value disks. G2 M3 Lesson 14: Model numbers with more than 9 ones or 9 tens; write in expanded, unit, standard, and word forms. G2 M3 Lesson 15: Explore a situation with more than 9 groups of ten. G2 M3 Topic F: Comparing Two Three-Digit Numbers
2.NS.2.c Apply patterns within the base 10 system to determine and communicate, orally and in written form, the place (ones, tens, hundreds) and value of each digit in a three-digit whole number (e.g., in 352, the 5 represents 5 tens and its value is 50).	G2 M3 Lesson 1: Bundle and count ones, tens, and hundreds to 1,000. G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 7: Write, read, and relate base ten numbers in all forms. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Topic E: Modeling Numbers Within 1,000 with Place Value Disks G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number
2.NS.2.d Investigate and explain the ten-to-one relationships among ones, tens, and hundreds, using models.	G2 M3 Lesson 1: Bundle and count ones, tens, and hundreds to 1,000. G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Lesson 12: Change 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.2.e Compose and decompose whole numbers up to 200 by making connections between a variety of models (e.g., base 10 blocks, place value cards, presented orally, in expanded or standard form) and counting strategies (e.g., 156 can be 1 hundred, 5 tens, 6 ones; 1 hundred, 4 tens, 16 ones; 15 tens, 6 ones).	G2 M3 Topic E: Modeling Numbers Within 1,000 with Place Value Disks G2 M3 Lesson 17: Compare two three-digit numbers using <, >, and = when there are more than 9 ones or 9 tens. G2 M3 Lesson 18: Order numbers in different forms.
2.NS.2.f Plot and justify the position of a given number up to 100 on a number line with pre-marked benchmarks of 1s, 2s, 5s, 10s, or 25s.	G2 M7 Lesson 21: Identify unknown numbers on a number line diagram by using the distance between numbers and reference points. G2 M7 Lesson 22: Represent two-digit sums and differences involving length by using the ruler as a number line. G3 M2 Lesson 2: Relate skip-counting by fives on the clock and telling time to a continuous measurement model, the number line. *Supplemental material is necessary to fully address this standard.*
2.NS.2.g Compare two whole numbers, each 999 or less, represented concretely, pictorially, or symbolically, using words (greater than, less than, or equal to) and symbols (>, <, or =). Justify reasoning orally, in writing, or with a model.	G2 M3 Topic F: Comparing Two Three-Digit Numbers

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.2.h Order up to three whole numbers, each 999 or less, represented concretely, pictorially, or symbolically from least to greatest and greatest to least.	G2 M3 Topic F: Comparing Two Three-Digit Numbers

Number and Number Sense

2.NS.3 The student will use mathematical reasoning and justification to solve contextual problems that involve partitioning models into equal-sized parts (halves, fourths, eighths, thirds, and sixths).

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.3.a Model and describe fractions as representing equal-size parts of a whole.	G2 M8 Lesson 7: Interpret equal shares in composite shapes as halves, thirds, and fourths. G2 M8 Lesson 8: Interpret equal shares in composite shapes as halves, thirds, and fourths. G2 M8 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles
2.NS.3.b Describe the relationship between the number of fractional parts needed to make a whole and the size of the parts (i.e., as the whole is divided into more parts, each part becomes smaller).	G2 M8 Lesson 10: Partition circles and rectangles into equal parts, and describe those parts as halves, thirds, or fourths. G3 M5 Lesson 1: Specify and partition a whole into equal parts, identifying and counting unit fractions using concrete models. G3 M5 Lesson 2: Specify and partition a whole into equal parts, identifying and counting unit fractions by folding fraction strips.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.3.c Compose the whole for a given fractional part and its value (in context) for halves, fourths, eighths, thirds, and sixths (e.g., when given $\frac{1}{4}$, determine how many pieces would be needed to make $\frac{4}{4}$).	G2 M8 Lesson 11: Describe a whole by the number of equal parts including 2 halves, 3 thirds, and 4 fourths. G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part.
2.NS.3.d Using same-size fraction pieces, from a region/area model, count by unit fractions up to two wholes (e.g., zero one-fourths, one one-fourth, two one-fourths, three one-fourths, four one-fourths, five one-fourths; or zero-fourths, one-fourth, two-fourths, three-fourths, four-fourths, five-fourths).	G3 M5 Lesson 6: Build non-unit fractions less than one whole from unit fractions. G3 M5 Lesson 9: Build and write fractions greater than one whole using unit fractions.
2.NS.3.e Given a context, represent, name, and write fractional parts of a whole for halves, fourths, eighths, thirds, and sixths using:	*This standard is addressed by the lessons aligned to its subsections.*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.3.e.i region/area models (e.g., pie pieces, pattern blocks, geoboards);	G2 M8 Lesson 7: Interpret equal shares in composite shapes as halves, thirds, and fourths. G2 M8 Lesson 8: Interpret equal shares in composite shapes as halves, thirds, and fourths. G2 M8 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles G3 M5 Lesson 3: Specify and partition a whole into equal parts, identifying and counting unit fractions by drawing pictorial area models. G3 M5 Lesson 4: Represent and identify fractional parts of different wholes. G3 M5 Lesson 6: Build non-unit fractions less than one whole from unit fractions. G3 M5 Lesson 7: Identify and represent shaded and non-shaded parts of one whole as fractions.
2.NS.3.e.ii length models (e.g., paper fraction strips, fraction bars, rods, number lines); and	G3 M5 Lesson 1: Specify and partition a whole into equal parts, identifying and counting unit fractions using concrete models. G3 M5 Lesson 2: Specify and partition a whole into equal parts, identifying and counting unit fractions by folding fraction strips. G3 M5 Lesson 4: Represent and identify fractional parts of different wholes. G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1.
2.NS.3.e.iii set models (e.g., chips, counters, cubes).	G3 M5 Lesson 4: Represent and identify fractional parts of different wholes. *Supplemental material is necessary to fully address this standard.*
2.NS.3.f Compare unit fractions for halves, fourths, eighths, thirds, and sixths using words (greater than, less than or equal to) and symbols ($>$, $<$, $=$), with region/area and length models.	G3 M5 Lesson 10: Compare unit fractions by reasoning about their size using fraction strips. G3 M5 Lesson 11: Compare unit fractions with different-sized models representing the whole.

Number and Number Sense

2.NS.4 The student will solve problems that involve counting and representing money amounts up to $2.00.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.NS.4.a Identify a quarter and its value and determine multiple ways to represent the value of a quarter using pennies, nickels, and/or dimes.	G1 M6 Lesson 21: Identify quarters by their image, name, or value. Decompose the value of a quarter using pennies, nickels, and dimes.
2.NS.4.b Count by ones, fives, tens, and twenty-fives to determine the value of a collection of mixed coins and one-dollar bills whose total value is $2.00 or less.	G2 M7 Lesson 6: Recognize the value of coins and count up to find their total value. G2 M7 Lesson 7: Solve word problems involving the total value of a group of coins. G2 M7 Lesson 13: Solve two-step word problems involving dollars or cents with total within $100 or $1. *Supplemental material is necessary to address a total value up to* $2.00.
2.NS.4.c Construct a set of coins and/or bills to total a given amount of money whose value is $2.00 or less.	G2 M7 Lesson 9: Solve word problems involving different combinations of coins with the same total value. G2 M7 Lesson 10: Use the fewest number of coins to make a given value. G2 M7 Lesson 11: Use different strategies to make $1 or make change from $1. *Supplemental material is necessary to address a value up to* $2.00.
2.NS.4.d Represent the value of a collection of coins and one-dollar bills (limited to $2.00 or less) using the cent (¢) and dollar ($) symbols and decimal point (.).	G2 M7 Topic B: Problem Solving with Coins and Bills *Supplemental material is necessary to address using the decimal point.*

Computation and Estimation

2.CE.1 The student will recall with automaticity addition and subtraction facts within 20 and estimate, represent, solve, and justify solutions to single-step and multistep problems, including those in context, using addition and subtraction with whole numbers where addends or minuends do not exceed 100.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.CE.1.a Apply strategies (e.g., rounding to the nearest 10, compatible numbers, other number relationships) to estimate a solution for single-step addition or subtraction problems, including those in context, where addends and minuends do not exceed 100.	G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line. G3 M2 Lesson 21: Estimate sums and differences of measurements by rounding, and then solve mixed word problems. *Supplemental material is necessary to fully address this standard.*
2.CE.1.b Apply strategies (e.g., the use of concrete and pictorial models, place value, properties of addition, the relationship between addition and subtraction) to determine the sum or difference of two whole numbers where addends or minuends do not exceed 100.	G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Topic B: Initiating Fluency with Addition and Subtraction Within 100 G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. G2 M4 Lesson 2: Add and subtract multiples of 10 including counting on to subtract. G2 M4 Lesson 3: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 4: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 6: Use manipulatives to represent the composition of 10 ones as 1 ten with two-digit addends. G2 M4 Lesson 7: Relate addition using manipulatives to a written vertical method. G2 M4 Lesson 8: Use math drawings to represent the composition and relate drawings to a written method. G2 M4 Lesson 11: Represent subtraction with and without the decomposition of 1 ten as 10 ones with manipulatives. G2 M4 Lesson 12: Relate manipulative representations to a written method.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.CE.1.b *continued*	G2 M4 Lesson 13: Use math drawings to represent subtraction with and without decomposition and relate drawings to a written method. G2 M4 Topic D: Strategies for Composing Tens and Hundreds
2.CE.1.c Represent, solve, and justify solutions to single-step and multistep contextual problems (e.g., join, separate, part-part-whole, comparison) involving addition or subtraction of whole numbers where addends or minuends do not exceed 100.	G2 M1 Lesson 2: Practice making the next ten and adding to a multiple of ten. G2 M1 Lesson 5: Make a ten to add within 100. G2 M1 Lesson 8: Take from ten within 100. G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 31: Solve two-step word problems within 100. G2 M6 Lesson 9: Solve word problems involving addition of equal groups in rows and columns.
2.CE.1.d Demonstrate fluency with addition and subtraction within 20 by applying reasoning strategies (e.g., doubles, near doubles, make-a-ten, compensations, inverse relationships).	G1 M1 Topic F: Development of Addition Fluency Within 10 G1 M1 Topic J: Development of Subtraction Fluency Within 10 G1 M6 Topic G: Culminating Experiences G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Lesson 4: Make a ten to add within 20. G2 M1 Lesson 7: Take from 10 within 20.
2.CE.1.e Recall with automaticity addition and subtraction facts within 20.	G1 M6 Topic G: Culminating Experiences G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Lesson 4: Make a ten to add within 20. G2 M1 Lesson 7: Take from ten within 20.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.CE.1.f Use patterns, models, and strategies to make generalizations about the algebraic properties for fluency (e.g., $4 + 3$ is equal to $3 + 4$; $0 + 8 = 8$).	G1 M1 Topic F: Development of Addition Fluency Within 10 G1 M1 Topic J: Development of Subtraction Fluency Within 10
2.CE.1.g Determine the missing number in an equation (number sentence) through modeling and justification with addition and subtraction within 20 (e.g., $3 + \_\_ = 5$ or $\_\_ + 2 = 5$; $5 - \_\_ = 3$ or $5 - 2 = \_\_$).	G1 M1 Lesson 11: Solve add to with change unknown math stories as a context for counting on by drawing, writing equations, and making statements of the solution. G1 M1 Lesson 12: Solve add to with change unknown math stories using 5-group cards. G1 M1 Lesson 13: Tell put together with result unknown, add to with result unknown, and add to with change unknown stories from equations. 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 Lesson 30: Solve add to with change unknown math stories with drawings, relating addition and subtraction. G1 M1 Lesson 31: Solve take from with change unknown math stories with drawings. G1 M1 Lesson 32: Solve put together/take apart with addend unknown math stories. G1 M4 Topic E: Varied Problem Types Within 20
2.CE.1.h Use inverse relationships to write all related facts connected to a given addition or subtraction fact model within 20 (e.g., given a model for $3 + 4 = 7$, write $4 + 3 = 7$, $7 - 4 = 3$, and $7 - 3 = 4$).	G1 M1 Topic G: Subtraction as an Unknown Addend Problem G1 M1 Lesson 30: Solve add to with change unknown math stories with drawings, relating addition and subtraction. G1 M1 Lesson 31: Solve take from with change unknown math stories with drawings. G1 M1 Lesson 32: Solve put together/take apart with addend unknown math stories. G1 M1 Topic J: Development of Subtraction Fluency Within 10 *Supplemental material is necessary to fully address this standard.*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.CE.1.i Describe the not equal symbol ($\neq$) as representing a relationship where expressions on either side of the not equal symbol represent different values and justify reasoning.	*Supplemental material is necessary to address this standard.*
2.CE.1.j Represent and justify the relationship between values and expressions as equal or not equal using appropriate models and/or symbols (e.g., $9 + 24 = 10 + 23$; $45 - 9 = 46 - 10$; $15 + 16 \neq 31 + 15$).	G1 M1 Lesson 17: Understand the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences. G1 M1 Lesson 18: Understand the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences. G1 M2 Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions. G2 M4 Lesson 4: Add and subtract multiples of 10 and some ones within 100.

Measurement and Geometry

2.MG.1 The student will reason mathematically using standard units (U.S. Customary) with appropriate tools to estimate, measure, and compare objects by length, weight, and liquid volume to the nearest whole unit.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.MG.1.a Explain the purpose of various measurement tools and how to use them appropriately by:	*This standard is addressed by the lessons aligned to its subsections.*

Mathematics Standards of Learning for Virginia Public Schools	**Aligned Components of *Eureka Math***
2.MG.1.a.i identifying a ruler as an instrument to measure length;	G2 M2 Topic A: Understand Concepts About the Ruler G2 M7 Topic C: Creating an Inch Ruler
2.MG.1.a.ii identifying different types of scales as instruments to measure weight; and	G3 M2 Lesson 7: Develop estimation strategies by reasoning about the weight in kilograms of a series of familiar objects to establish mental benchmark measures. G3 M2 Lesson 8: Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions.
2.MG.1.a.iii identifying different types of measuring cups as instruments to measure liquid volume.	G3 M2 Lesson 9: Decompose a liter to reason about the size of 1 liter, 100 milliliters, 10 milliliters, and 1 milliliter. *Supplemental material is necessary to fully address this standard.*
2.MG.1.b Use U.S. Customary units to estimate, measure, and compare the two for reasonableness:	*This standard is addressed by the lessons aligned to its subsections.*
2.MG.1.b.i the length of an object to the nearest inch, using a ruler;	G2 M7 Topic C: Creating an Inch Ruler G2 M7 Lesson 16: Measure various objects using inch rulers and yardsticks. G2 M7 Lesson 17: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks. G2 M7 Lesson 19: Measure to compare the differences in length using inches, feet, and yards.
2.MG.1.b.ii the weight of an object to the nearest pound, using a scale; and	*Supplemental material is necessary to address this standard.*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.MG.1.b.iii the liquid volume of a container to the nearest cup, using a measuring cup.	*Supplemental material is necessary to address this standard.*

Measurement and Geometry

2.MG.2 The student will demonstrate an understanding of the concept of time to the nearest five minutes, using analog and digital clocks.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.MG.2.a Identify the number of minutes in an hour (60 minutes) and the number of hours in a day (24 hours).	G2 M8 Topic D: Application of Fractions to Tell Time
2.MG.2.b Determine the unit of time (minutes, hours, days, or weeks) that is most appropriate when measuring a given activity or context and explain reasoning (e.g., Would you measure the time it takes to brush your teeth in minutes or hours?).	G3 M2 Lesson 1: Explore time as a continuous measurement using a stopwatch. *Supplemental material is necessary to fully address this standard.*
2.MG.2.c Show, tell, and write time to the nearest five minutes, using analog and digital clocks.	G2 M8 Topic D: Application of Fractions to Tell Time

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.MG.2.d Match a written time (e.g., 1:35, 6:20, 9:05) to the time shown on an analog clock to the nearest five minutes.	G2 M8 Topic D: Application of Fractions to Tell Time

Measurement and Geometry
2.MG.3 The student will identify, describe, and create plane figures (including circles, triangles, squares, and rectangles) that have at least one line of symmetry and explain its relationship with congruency.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.MG.3.a Explore a figure using a variety of tools (e.g., paper folding, geoboards, drawings) to show and justify a line of symmetry, if one exists.	*Supplemental material is necessary to address this standard.*
2.MG.3.b Create figures with at least one line of symmetry using various concrete and pictorial representations.	*Supplemental material is necessary to address this standard.*
2.MG.3.c Describe the two resulting figures formed by a line of symmetry as being congruent (having the same shape and size).	*Supplemental material is necessary to address this standard.*

Measurement and Geometry

2.MG.4 The student will describe, name, compare, and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms).

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.MG.4.a Trace faces of solid figures (cubes and rectangular prisms) to create the set of plane figures related to the solid figure.	*Supplemental material is necessary to address this standard.*
2.MG.4.b Compare and contrast models and nets (cutouts) of cubes and rectangular prisms (e.g., number and shapes of faces, edges, vertices).	*Supplemental material is necessary to address this standard.*
2.MG.4.c Given a concrete or pictorial model, name and describe the solid figure (sphere, cube, and rectangular prism) by its characteristics (e.g., number of edges, number of vertices, shapes of faces).	G1 M5 Lesson 3: Find and name three-dimensional shapes including cone and rectangular prism, based on defining attributes of faces and points. G2 M8 Lesson 5: Relate the square to the cube, and describe the cube based on attributes.
2.MG.4.d Compare and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms) according to their characteristics (e.g., number and shapes of their faces, edges, vertices).	G2 M8 Lesson 5: Relate the square to the cube, and describe the cube based on attributes. *Supplemental material is necessary to fully address this standard.*

Probability and Statistics
2.PS.1 The student will apply the data cycle (pose questions; collect or acquire data; organize and represent data; and analyze data and communicate results) with a focus on pictographs and bar graphs.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.PS.1.a Pose questions, given a predetermined context, that require the collection of data (limited to 25 or fewer data points for no more than six categories).	G2 M7 Lesson 1: Sort and record data into a table using up to four categories; use category counts to solve word problems. G3 M6 Lesson 1: Generate and organize data.
2.PS.1.b Determine the data needed to answer a posed question and collect the data using various methods (e.g., voting; creating lists, tables, or charts; tallying).	G2 M7 Lesson 1: Sort and record data into a table using up to four categories; use category counts to solve word problems. G3 M6 Lesson 1: Generate and organize data.
2.PS.1.c Organize and represent a data set using a pictograph where each symbol represents up to 2 data points. Determine and use a key to assist in the analysis of the data.	G2 M7 Lesson 2: Draw and label a picture graph to represent data with up to four categories. G3 M6 Lesson 1: Generate and organize data.
2.PS.1.d Organize and represent a data set using a bar graph with a title and labeled axes (limited to 25 or fewer data points for up to six categories, and limit increments of scale to multiples of 1 or 2).	G2 M7 Lesson 3: Draw and label a bar graph to represent data; relate the count scale to the number line. G2 M7 Lesson 4: Draw a bar graph to represent a given data set. *Supplemental material is necessary to address scales with increments in multiples of 2.*

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.PS.1.e Analyze data represented in pictographs and bar graphs and communicate results:	*This standard is addressed by the lessons aligned to its subsections.*
2.PS.1.e.i ask and answer questions about the data represented in pictographs and bar graphs (e.g., total number of data points represented, how many in each category, how many more or less are in one category than another). Pictograph keys will be limited to symbols representing 1, 2, 5, or 10 pieces of data and bar graphs will be limited to scales with increments in multiples of 1, 2, 5, or 10; and	G2 M7 Topic A: Problem Solving with Categorical Data G3 M6 Lesson 1: Generate and organize data. G3 M6 Lesson 3: Create scaled bar graphs. *Supplemental material is necessary to fully address pictograph keys greater than 2.*
2.PS.1.e.ii draw conclusions about the data and make predictions based on the data.	*Supplemental material is necessary to address this standard.*

Patterns, Functions, and Algebra

2.PFA.1 The student will describe, extend, create, and transfer repeating and increasing patterns (limited to addition of whole numbers) using various representations.

Mathematics Standards of Learning for Virginia Public Schools	Aligned Components of *Eureka Math*
2.PFA.1.a Identify and describe repeating and increasing patterns.	G2 M3 Lesson 21: Complete a pattern counting up and down. G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. *Supplemental material is necessary to fully address this standard.*
2.PFA.1.b Analyze a repeating or increasing pattern and generalize the change to extend the pattern using objects, pictures, and numbers.	G2 M3 Lesson 21: Complete a pattern counting up and down. G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. G2 M6 Lesson 19: Investigate the pattern of even numbers: 0, 2, 4, 6, and 8 in the ones place, and relate to odd numbers. *Supplemental material is necessary to fully address this standard.*
2.PFA.1.c Create a repeating or increasing pattern using various representations (e.g., objects, pictures, numbers).	*Supplemental material is necessary to address this standard.*
2.PFA.1.d Transfer a given repeating or increasing pattern from one form to another (e.g., objects, pictures, numbers) and explain the connection between the two patterns.	*Supplemental material is necessary to address this standard.*