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 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 academic 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

North Carolina Standard Course of Study Mathematics Correlation to *Eureka Math*®

GRADE 2 MATHEMATICS

The Grade 2 North Carolina Course of Study for Mathematics is fully covered by the Grade 2 *Eureka Math* curriculum. A detailed analysis of alignment is provided in the table below.

INDICATORS

GREEN	indicates the North Carolina standard is addressed in *Eureka Math*.
YELLOW	indicates the North Carolina standard may not be completely addressed in *Eureka Math*.
RED	indicates the North Carolina standard is not addressed in *Eureka Math*.
BLUE	indicates there is a discrepancy between the grade level at which this standard is addressed in North Carolina 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 in Second Grade examine problems and tasks, can make sense of the meaning of the task and find an entry point or a way to start the task. Second Grade students also develop a foundation for problem solving strategies and become independently proficient on using those strategies to solve new tasks. In Second Grade, students' work continues to use concrete manipulatives and pictorial representations as well as mental mathematics. Second Grade students also are expected to persevere while solving tasks; that is, if students reach a point in which they are stuck, they can reexamine the task in a different way and continue to solve the task. Lastly mathematically proficient students complete a task by asking themselves the question, "Does my answer make sense?"	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: G2 M4: Addition and Subtraction Within 200 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*
2. Reason abstractly and quantitatively. Mathematically proficient students in Second Grade make sense of quantities and relationships while solving tasks. This involves two processes—decontextualizing and contextualizing. In Second Grade, students represent situations by decontextualizing tasks into numbers and symbols. For example, in the task, "There are 25 children in the cafeteria and they are joined by 17 more children. How many students are in the cafeteria?" Second Grade students translate that situation into an equation, such as: 25 + 17 = __ and then solve the problem. Students also contextualize situations during the problem solving process. For example, while solving the task above, students can refer to the context of the task to determine that they need to subtract 19 since 19 children leave. The processes of reasoning also other areas of mathematics such as determining the length of quantities when measuring with standard units.	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: G2 M1: Sums and Differences to 100 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 M7: Problem Solving with Length, Money, and Data

Standards for Mathematical Practice	Aligned Components of *Eureka Math*
3. Construct viable arguments and critique the reasoning of others. Mathematically proficient students in Second Grade accurately use definitions and previously established solutions to construct viable arguments about mathematics. During discussions about problem solving strategies, students constructively critique the strategies and reasoning of their classmates. For example, while solving 74 – 18, students may use a variety of strategies, and after working on the task, can discuss and critique each other's reasoning and strategies, citing similarities and differences between strategies.	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*
4. Model with mathematics. Mathematically proficient students in Second Grade model real-life mathematical situations with a number sentence or an equation, and check to make sure that their equation accurately matches the problem context. Second Grade students use concrete manipulatives and pictorial representations to provide further explanation of the equation. Likewise, Second Grade students are able to create an appropriate problem situation from an equation. For example, students are expected to create a story problem for the equation 43 + 17 = ___ such as "There were 43 gumballs in the machine. Tom poured in 17 more gumballs. How many gumballs are now in the machine?"	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: G2 M4: Addition and Subtraction Within 200 with Word Problems to 100 G2 M6: Foundations of Multiplication and Division G2 M7: Problem Solving with Length, Money, and Data
5. Use appropriate tools strategically. Mathematically proficient students in Second Grade have access to and use tools appropriately. These tools may include snap cubes, place value (base ten) blocks, hundreds number boards, number lines, rulers, and concrete geometric shapes (e.g., pattern blocks, 3-d solids). Students also have experiences with educational technologies, such as calculators and virtual manipulatives, which support conceptual understanding and higher-order thinking skills. During classroom instruction, students have access to various mathematical tools as well as paper, and determine which tools are the most appropriate to use. For example, while measuring the length of the hallway, students can explain why a yardstick is more appropriate to use than a ruler.	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: G2 M1: Sums and Differences to 100 G2 M2: Addition and Subtraction of Length Units G2 M7: Problem Solving with Length, Money, and Data

Standards for Mathematical Practice	Aligned Components of *Eureka Math*
6. Attend to precision. Mathematically proficient students in Second Grade are precise in their communication, calculations, and measurements. In all mathematical tasks, students in Second Grade communicate clearly, using grade-level appropriate vocabulary accurately as well as giving precise explanations and reasoning regarding their process of finding solutions. For example, while measuring an object, care is taken to line up the tool correctly in order to get an accurate measurement. During tasks involving number sense, students consider if their answer is reasonable and check their work to ensure the accuracy of solutions.	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. Mathematically proficient students in Second Grade carefully look for patterns and structures in the number system and other areas of mathematics. For example, students notice number patterns within the tens place as they connect skip count by 10s off the decade to the corresponding numbers on a 100s chart. While working in the Numbers in Base Ten domain, students work with the idea that 10 ones equals a ten, and 10 tens equals 1 hundred. In addition, Second Grade students also make use of structure when they work with subtraction as missing addend problems, such as 50 – 33 = ___ can be written as 33 + __ = 50 and can be thought of as, "How much more do I need to add to 33 to get to 50?"	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
8. Look for and express regularity in repeated reasoning. Mathematically proficient students in Second Grade begin to look for regularity in problem structures when solving mathematical tasks. For example, after solving two-digit addition problems by decomposing numbers (33 + 25 = 30 + 20 + 3 + 5), students may begin to generalize and frequently apply that strategy independently on future tasks. Further, students begin to look for strategies to be more efficient in computations, including doubles strategies and making a ten. Lastly, while solving all tasks, Second Grade students accurately check for the reasonableness of their solutions during and after completing the task.	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

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Operations and Algebraic Thinking	**Cluster: Represent and solve problems.**	

	NC.2.OA.1
	Represent and solve addition and subtraction word problems, within 100, with unknowns in all positions, by using representations and equations with a symbol for the unknown number to represent the problem, when solving:
	• One-Step problems:
	  ○ Add to/Take from–Start Unknown
	  ○ Compare–Bigger Unknown
	  ○ Compare–Smaller Unknown
	• Two-Step problems involving single digits:
	  ○ Add to/Take from–Change Unknown
	  ○ Add to/Take from–Result Unknown
		G2 M1 Topic A: Foundations for Addition and Subtraction within 20
		G2 M1 Topic B: Mental Strategies for Addition and Subtraction within 20
		G2 M1 Topic C: Strategies for Addition and Subtraction within 100
		G2 M4 Topic A: Sums and Differences within 100
		G2 M4 Topic C: Strategies for Decomposing a Ten
		G2 M4 Topic F: Student Explanations of Written Methods

	Cluster: Add and subtract within 20.	
	NC.2.OA.2 Demonstrate fluency with addition and subtraction, within 20, using mental strategies.	G2 M1 Topic A: Foundations for Addition and Subtraction within 20 G2 M1 Topic B: Mental Strategies for Addition and Subtraction within 20

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Work with equal groups.	
	NC.2.OA.3 Determine whether a group of objects, within 20, has an odd or even number of members by: • Pairing objects, then counting them by 2s. • Determining whether objects can be placed into two equal groups. • Writing an equation to express an even number as a sum of two equal addends.	G2 M6 Topic D: The Meaning of Even and Odd Numbers
	NC.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 a sum of equal addends.	G2 M6 Topic A: Formation of Equal Groups G2 M6 Topic B: Arrays and Equal Groups G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Number and Operations in Base Ten	**Cluster: Understand place value.**	
	NC.2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones. • Unitize by making a hundred from a collection of ten tens. • Demonstrate that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds, with 0 tens and 0 ones. • Compose and decompose numbers using various groupings of hundreds, tens, and ones.	G2 M3 Topic A: Forming Base-Ten Units of Ten, a Hundred, and a Thousand G2 M3 Topic E: Modeling Numbers within 1,000 with Place Value Disks
	NC.2.NBT.2 Count within 1,000; skip-count by 5s, 10s, and 100s.	G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Topic C: Three-Digit Numbers in Unit, Numeral, Expanded, and Word Forms 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
	NC.2.NBT.3 Read and write numbers, within 1,000, using base-ten numerals, number names, and expanded form.	G2 M3 Topic C: Three-Digit Numbers in Unit, Numeral, Expanded, and Word Forms

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.2.NBT.4 Compare two three-digit numbers based on the value of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	G2 M3 Topic F: Comparing Two Three-Digit Numbers
	Cluster: Understand place value and properties of operations.	
	NC.2.NBT.5 Demonstrate fluency with addition and subtraction, within 100, by: • Flexibly using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. • Comparing addition and subtraction strategies, and explaining why they work. • Selecting an appropriate strategy in order to efficiently compute sums and differences.	G2 M1 Topic C: Strategies for Addition and Subtraction within 100 G2 M4 Topic A: Sums and Differences within 100 G2 M7 Topic B: Problem Solving with Coins and Bills
	NC.2.NBT.6 Add up to three two-digit numbers using strategies based on place value and properties of operations.	G2 M4 Topic D: Strategies for Composing Tens and Hundreds

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.2.NBT.7 Add and subtract, within 1,000, relating the strategy to a written method, using: • Concrete models or drawings • Strategies based on place value • Properties of operations • Relationship between addition and subtraction	G2 M4 Topic B: Strategies for Composing a Ten G2 M4 Topic C: Strategies for Decomposing a Ten G2 M4 Topic D: Strategies for Composing Tens and Hundreds G2 M4 Topic E: Strategies for Decomposing Tens and Hundreds G2 M4 Topic F: Student Explanations of Written Methods G2 M5 Topic A: Strategies for Adding and Subtracting within 1,000 G2 M5 Topic B: Strategies for Composing Tens and Hundreds within 1,000 G2 M5 Topic C: Strategies for Decomposing Tens and Hundreds within 1,000 G2 M5 Topic D: Student Explanations for Choice of Solution Methods
	NC.2.NBT.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	G2 M4 Topic A: Sums and Differences within 100 G2 M4 Topic D: Strategies for Composing Tens and Hundreds G2 M5 Topic A: Strategies for Adding and Subtracting within 1,000 G2 M5 Topic D: Student Explanations for Choice of Solution Methods

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Measurement and Data	**Cluster: Measure and estimate lengths.**	
	NC.2.MD.1 Measure the length of an object in standard units by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	G2 M2 Topic A: Understand Concepts about the Ruler G2 M2 Topic B: Measure and Estimate Length Using Different Measurement Tools G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units G2 M7 Topic C: Creating an Inch Ruler G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units
	NC.2.MD.2 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.	G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units
	NC.2.MD.3 Estimate lengths in using standard units of inches, feet, yards, centimeters, and meters.	G2 M2 Topic B: Measure and Estimate Length Using Different Measurement Tools G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units
	NC.2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	G2 M2 Topic C: Measure and Compare Lengths Using Different Length Units G2 M7 Topic D: Measuring and Estimating Length Using Customary and Metric Units

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Relate addition and subtraction to length.	
	NC.2.MD.5 Use addition and subtraction, within 100, to solve word problems involving lengths that are given in the same units, using equations with a symbol for the unknown number to represent the problem.	G2 M2 Topic D: Relate Addition and Subtraction to Length G2 M7 Topic E: Problem Solving with Customary and Metric Units
	NC.2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points and represent whole-number sums and differences, within 100, on a number line.	G2 M2 Topic D: Relate Addition and Subtraction to Length G2 M7 Topic E: Problem Solving with Customary and Metric Units G2 M7 Topic F: Displaying Measurement Data
	Cluster: Build understanding of time and money.	
	NC.2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	G2 M8 Topic D: Application of Fractions to Tell Time
	NC.2.MD.8 Solve word problems involving: • Quarters, dimes, nickels, and pennies within 99¢, using ¢ symbols appropriately. • Whole dollar amounts, using the $ symbol appropriately.	G2 M7 Topic B: Problem Solving with Coins and Bills

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Represent and interpret data.	
	NC.2.MD.10 Organize, represent, and interpret data with up to four categories. • Draw a picture graph and a bar graph with a single-unit scale to represent a data set. • Solve simple put-together, take-apart, and compare problems using information presented in a picture and a bar graph.	G2 M7 Topic A: Problem Solving with Categorical Data
Geometry	**Cluster: Reason with shapes and their attributes.**	
	NC.2.G.1 Recognize and draw triangles, quadrilaterals, pentagons, and hexagons, having specified attributes; recognize and describe attributes of rectangular prisms and cubes.	G2 M8 Topic A: Attributes of Geometric Shapes
	NC.2.G.3 Partition circles and rectangles into two, three, or four equal shares. • Describe the shares using the words halves, thirds, half of, a third of, fourths, fourth of, quarter of. • Describe the whole as two halves, three thirds, four fourths. • Explain that equal shares of identical wholes need not have the same shape.	G2 M8 Topic B: Composite Shapes and Fraction Concepts G2 M8 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles G2 M8 Topic D: Application of Fractions to Tell Time