EUREKA MATH™
FROM GREAT MINDS®

GREAT MINDS™

ABOUT *EUREKA MATH*

Created by Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math.

Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.

ALIGNED

Eureka Math is the only curriculum found by EdReports.org to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses which demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.

DATA

Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

FULL SUITE OF RESOURCES

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 Collaborative for Mathematics Learning (NC²ML) Correlation to *Eureka Math*™

GRADE 1 MATHEMATICS

The majority of the North Carolina Collaborative for Mathematics Learning (NC²ML) First Grade Instructional Framework is fully covered by the Grade 1 *Eureka Math* curriculum. The primary areas where the North Carolina Collaborative for Mathematics Learning (NC²ML) First Grade Instructional Framework and *Eureka Math* do not align are in Cluster 1: Using Numbers to Explore Our Mathematical Community; Cluster 5: Operating with Place Value; and Cluster 6: Distinguishing and Composing Shapes. Standards from these clusters will require the use of supplemental materials. A detailed analysis of alignment is provided in the table below. With strategic placement of supplemental materials, *Eureka Math* can ensure students are successful in achieving the proficiencies of the North Carolina Collaborative for Mathematics Learning (NC²ML) First Grade Instructional Framework while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

- Green indicates that the North Carolina standard is fully addressed in *Eureka Math*.
- Yellow indicates that the North Carolina standard may not be completely addressed in *Eureka Math*.
- Red indicates that 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 the North Carolina standards and in *Eureka Math*.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Cluster 1: **Using Numbers to Explore Our Mathematical Community**	**NC.1.NBT.1** Count to 150, starting at any number less than 150.	G1 M4 Lesson 1: Compare the efficiency of counting by ones and counting by tens. G1 M6 Lesson 7: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120. G1 M6 Lesson 8: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart. G1 M6 Lesson 9: Represent up to 120 objects with a written numeral. Note: Supplemental material is necessary to address numbers between 120 and 150.
	NC.1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.	
	▪ Unitize by making a ten from a collection of ten ones.	G1 M2 Topic D: Varied Problems with Decompositions of Teen Numbers as 1 Ten and Some Ones G1 M4 Topic A: Tens and Ones G1 M4 Lesson 23: Interpret two-digit numbers as tens and ones, including cases with more than 9 ones. G1 M6 Lesson 3: Use the place value chart to record and name tens and ones within a two-digit number up to 100. G1 M6 Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	▪ Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.		G1 M2 Topic D: Varied Problems with Decompositions of Teen Numbers as 1 Ten and Some Ones
	NC.1.NBT.7 Read and write numerals, and represent a number of objects with a written numeral, to 20.		G1 M6 Lesson 7: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120. G1 M6 Lesson 8: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart. G1 M6 Lesson 9: Represent up to 120 objects with a written numeral. Note: The content in Grade 1 *Eureka Math* exceeds this standard.
	NC.1.MD.4 Organize, represent, and interpret data with up to three categories.		
	▪ Ask and answer questions about the total number of data points.		G1 M3 Topic D: Data Interpretation
	▪ Ask and answer questions about how many in each category.		G1 M3 Topic D: Data Interpretation
	▪ Ask and answer questions about how many more or less are in one category than in another.		G1 M3 Topic D: Data Interpretation

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
Cluster 2: **Building a Conceptual Understanding of Addition and Subtraction**	**NC.1.OA.1** Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects and drawings when solving:		
	▪ Add to/Take from—Change Unknown		G1 M1 Topic C: Addition Word Problems G1 M1 Lesson 25: Solve *add to with change unknown* math stories with addition, and relate to subtraction. Model with materials, and write corresponding number sentences. G1 M1 Topic H: Subtraction Word Problems
	▪ Put together/Take Apart—Addend Unknown		G1 M1 Lesson 32: Solve *put together/take apart with addend unknown* math stories.
	NC.1.OA.3 Apply the commutative and associative properties as strategies for solving addition problems.		G1 M1 Topic E: The Commutative Property of Addition and the Equal Sign G1 M1 Topic F: Development of Addition Fluency Within 10 G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20 G1 M4 Topic D: Addition of Tens or Ones to a Two-Digit Number

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.1.OA.6 Add and subtract, within 20, using strategies such as:	
	▪ Counting on	G1 M1 Topic B: Counting On from Embedded Numbers G1 M1 Topic D: Strategies for Counting On G1 M1 Topic G: Subtraction as an Unknown Addend Problem
	▪ Making ten	G1 M2 Topic A: Counting On or Making Ten to Solve *Result Unknown* and *Total Unknown* Problems
	▪ Decomposing a number leading to a ten	G1 M2 Topic B: Counting On or Taking from Ten to Solve *Result Unknown* and *Total Unknown* Problems
	▪ Using the relationship between addition and subtraction	G1 M1 Topic G: Subtraction as an Unknown Addend Problem G1 M1 Topic J: Development of Subtraction Fluency Within 10
	▪ Using a number line	G1 M1 Topic G: Subtraction as an Unknown Addend Problem G1 M2 Lesson 19: Compare efficiency of counting on and taking from ten. G1 M2 Lesson 20: Subtract 7, 8, and 9 from teen numbers. Note: *Eureka Math* explicitly introduces the number line in Grade 2. Students use number paths in Grade 1.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	▪ Creating equivalent but simpler or known sums	G1 M1 Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards. G1 M2: Introduction to Place Value Through Addition and Subtraction Within 20
	NC.1.OA.7 Apply understanding of the equal sign to determine if equations involving addition and subtraction are true.	G1 M1 Topic E: The Commutative Property of Addition and the Equal Sign G1 M2 Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions.
	NC.1.OA.9 Demonstrate fluency with addition and subtraction within 10.	G1 M1: Sums and Differences to 10 Note: Students build fluency of addition and subtraction within 10 in a variety of fluency activities in Grade 1.
Cluster 3: **Using Place Value to Compare Numbers**	**NC.1.NBT.2** Understand that the two digits of a two-digit number represent amounts of tens and ones.	
	▪ Unitize by making a ten from a collection of ten ones. ▪ Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	Please see Cluster 1, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	▪ Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.	G1 M4 Topic A: Tens and Ones G1 M4 Lesson 23: Interpret two-digit numbers as tens and ones, including cases with more than 9 ones. G1 M6 Lesson 3: Use the place value chart to record and name tens and ones within a two-digit number up to 100. G1 M6 Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones. G1 M6 Lesson 24: Use dimes and pennies as representations of numbers to 120.
	NC.1.NBT.3 Compare two two-digit numbers based on the value of the tens and ones digits, recording the results of comparisons.	G1 M4 Topic B: Comparison of Pairs of Two-Digit Numbers
	NC.1.MD.4 Organize, represent, and interpret data with up to three categories. ▪ Ask and answer questions about the total number of data points. ▪ Ask and answer questions about how many in each category. ▪ Ask and answer questions about how many more or less are in one category than in another.	Please see Cluster 1, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.1.OA.1 Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects and drawings when solving:	
	▪ Add to/Take from—Change Unknown ▪ Put together/Take Apart—Addend Unknown	Please see Cluster 2, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	▪ Compare—Difference Unknown	G1 M3 Lesson 6: Order, measure, and compare the length of objects before and after measuring with centimeter cubes, solving *compare with difference unknown* word problems. G1 M3 Lesson 9: Answer *compare with difference unknown* problems about lengths of two different objects measured in centimeters. G1 M6 Topic A: Comparison Word Problems G1 M6 Topic F: Varied Problem Types Within 20
Cluster 4: Understanding Measurement and Data as a Context to Compare Numbers	**NC.1.MD.1** Order three objects by length; compare the lengths of two objects indirectly by using a third object.	G1 M3 Topic A: Indirect Comparison in Length Measurement G1 M3 Lesson 6: Order, measure, and compare the length of objects before and after measuring with centimeter cubes, solving *compare with difference unknown* word problems.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.1.MD.2 Measure lengths with non-standard units.	
	▪ Express the length of an object as a whole number of non-standard length units.	G1 M3 Topic C: Non-Standard and Standard Length Units
	▪ Measure by laying multiple copies of a shorter object (the length unit) end to end (iterating) with no gaps or overlaps.	G1 M3: Ordering and Comparing Length Measurements as Numbers
	NC.1.NBT.3 Compare two two-digit numbers based on the value of the tens and ones digits, recording the results of comparisons with the symbols <, >, and =.	G1 M4 Topic B: Comparison of Pairs of Two-Digit Numbers G1 M6 Lesson 6: Use the symbols >, =, and < to compare quantities and numerals to 100.
	NC.1.OA.2 Represent and solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.	G1 M2 Lesson 1: Solve word problems with three addends, two of which make ten. G1 M2 Lesson 2: Use the associative and commutative properties to make ten with three addends.
	NC.1.OA.7 Apply understanding of the equal sign.	G1 M1 Topic E: The Commutative Property of Addition and the Equal Sign G1 M2 Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.1.OA.8 Determine the unknown whole number in an addition or subtraction equation involving three whole numbers.	G1 M1 Topic C: Addition Word Problems G1 M1 Lesson 16: Count on to find the unknown part in missing addend equations such as 6 + ☐ = 9. Answer, "How many more to make 6, 7, 8, 9, and 10?" G1 M1 Topic H: Subtraction Word Problems G1 M4 Topic E: Varied Problem Types Within 20 G1 M6 Topic A: Comparison Word Problems
Cluster 5: **Operating with Place Value**	**NC.1.NBT.1** Count to 150, starting at any number less than 150.	Please see Cluster 1, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones ▪ Unitize by making a ten from a collection of ten ones. ▪ Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. ▪ Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.	Please see Clusters 1 and 3, which introduce this standard. Students continue to build their knowledge through fluency activities and application problems.

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	NC.1.NBT.4 Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations:		
	▪ A two-digit number and a one-digit number		G1 M4 Topic D: Addition of Tens or Ones to a Two-Digit Number
	▪ A two-digit number and a multiple of 10		G1 M4 Topic C: Addition and Subtraction of Tens G1 M4 Lessons 16–17: Add ones and ones or tens and tens. G1 M6 Lesson 11: Add a multiple of 10 to any two-digit number within 100.
	NC.1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.		G1 M4 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number. G1 M4 Lesson 6: Use dimes and pennies as representations of tens and ones. G1 M6 Lesson 5: Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number within 100.

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	NC.1.NBT.6 Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90, explaining the reasoning, using:		
	▪ Concrete models and drawings		G1 M4 Topic C: Addition and Subtraction of Tens G1 M6 Lesson 10: Add and subtract multiples of 10 from multiples of 10 to 100, including dimes.
	▪ Number lines		G1 M4 Topic C: Addition and Subtraction of Tens Note: Supplemental material is necessary to address number lines.
	▪ Strategies based on place value		G1 M4 Topic C: Addition and Subtraction of Tens G1 M6 Lesson 10: Add and subtract multiples of 10 from multiples of 10 to 100, including dimes.
	▪ Properties of operations		G1 M4 Topic C: Addition and Subtraction of Tens G1 M6 Lesson 10: Add and subtract multiples of 10 from multiples of 10 to 100, including dimes.
	▪ The relationship between addition and subtraction		G1 M4 Topic C: Addition and Subtraction of Tens G1 M6 Lesson 10: Add and subtract multiples of 10 from multiples of 10 to 100, including dimes.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.1.OA.1 Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving: ▪ Add to/Take from—Change Unknown ▪ Put together/ Take Apart—Addend Unknown ▪ Compare—Difference Unknown	Please see Clusters 2 and 3, which introduce this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.OA.3 Apply the commutative and associative properties as strategies for solving addition problems.	Please see Cluster 2, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.OA.7 Apply understanding of the equal sign to determine if equations involving addition and subtraction are true.	Please see Cluster 2, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
Cluster 6: **Distinguishing and Composing Shapes**	**NC.1.G.1** Distinguish between defining and non-defining attributes and create shapes with defining attributes by:		
	▪ Building and drawing triangles, rectangles, squares, trapezoids, hexagons, circles.		G1 M5 Topic A: Attributes of Shapes
	▪ Building cubes, rectangular prisms, cones, spheres, and cylinders.		G1 M5 Lesson 3: Find and name three-dimensional shapes including cone and rectangular prism, based on defining attributes of faces and points. Note: Supplemental material is necessary to address building these shapes.
	NC.1.G.2 Create composite shapes by:		
	▪ Making a two-dimensional composite shape using rectangles, squares, trapezoids, triangles, and half-circles naming the components of the new shape.		G1 M5 Topic B: Part–Whole Relationships Within Composite Shapes
	▪ Making a three-dimensional composite shape using cubes, rectangular prisms, cones, and cylinders, naming the components of the new shape.		G1 M5 Lesson 6: Create a composite shape from three-dimensional shapes and describe the composite shape using shape names and positions.

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
Cluster 7: **Partitioning and Telling Time to the Half Hour**	**NC.1.MD.3** Tell and write time in hours and half-hours using analog and digital clocks.		G1 M5 Topic D: Application of Halves to Tell Time
	NC.1.G.3 Partition circles and rectangles into two and four equal shares.		
	▪ Describe the shares as halves and fourths, as half of and fourth of.		G1 M5 Lesson 8: Partition shapes and identify halves and quarters of circles and rectangles.
	▪ Describe the whole as two of, or four of the shares.		G1 M5 Lesson 7: Name and count shapes as parts of a whole, recognizing relative sizes of the parts.
	▪ Explain that decomposing into more equal shares creates smaller shares.		G1 M5 Lesson 9: Partition shapes and identify halves and quarters of circles and rectangles.
Cluster 8: **Developing Flexibility with Numbers**	**NC.1.OA.1** Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem, when solving: ▪ Add to/Take from—Change Unknown ▪ Put together/ Take Apart—Addend Unknown ▪ Compare—Difference Unknown		Please see Clusters 2 and 3, which introduce this standard. Students continue to build their knowledge through fluency activities and application problems.

Cluster	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	NC.1.OA.2 Represent and solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.	Please see Cluster 4, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.OA.3 Apply the commutative and associative properties as strategies for solving addition problems.	Please see Cluster 2, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.OA.4 Solve an unknown-addend problem, within 20, by using addition strategies and/or changing it to a subtraction problem.	G1 M1 Topic G: Subtraction as an Unknown Addend Problem G1 M1 Topic H: Subtraction Word Problems G1 M2 Lesson 16: Relate counting on to making ten and taking from ten. G1 M2 Lesson 19: Compare efficiency of counting on and taking from ten. G1 M2 Lesson 21: Share and critique peer solution strategies for *take from with result unknown* and *take apart with addend unknown* word problems from the teens. G1 M2 Topic C: Strategies for Solving *Change* or *Addend Unknown* Problems

Cluster	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	NC.1.OA.6 Add and subtract, within 20, using strategies such as: ▪ Counting on ▪ Making ten ▪ Decomposing a number leading to a ten ▪ Using the relationship between addition and subtraction ▪ Using a number line ▪ Creating equivalent but simpler or known sums		Please see Cluster 2, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.OA.9 Demonstrate fluency with addition and subtraction within 10.		Please see Cluster 2, which introduces this standard. Students continue to build their knowledge through fluency activities and application problems.
	NC.1.MD.5 Identify quarters, dimes, and nickels and relate their values to pennies.		G1 M6 Topic E: Coins and Their Values