Grade K | Georgia's K–12 Mathematics Standards 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

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

The right column includes an image excerpt from Eureka Math:
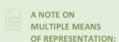
A STORY OF UNITS — Lesson 4 K•2

Note: Students can become frustrated as they attempt to articulate the difference between a circle and an oval. Though they may not be able to describe the concept of equidistance from a center, they can tell you that if they had a race car, they would rather have wheels in the shape of a circle than in the shape of an oval. "Circles can roll better!" "They are not squished!"

MP.1

T: We are going to have another detective hunt today. You and your partner will search for these shapes in the classroom. Use your clipboards and detective equipment, and draw any circles and hexagons that are hiding! (Allow students to investigate for five minutes before they return to their seats.)

T: Would anyone like to show and share one of the circles or hexagons they found in the classroom today? How is your circle or hexagon different from the other shapes we've learned? (Allow time for sharing and discussion.)

A NOTE ON MULTIPLE MEANS OF REPRESENTATION:

Once the vocabulary words *hexagon* and *circle* have been introduced, post these on the word wall with a visual of a circle and many different examples of hexagons.

Mathematical Modeling Framework	Aligned Components of *Eureka Math*
MF.1 Explore and describe real-life, mathematical situations or problems.	Lessons in every module engage students in mathematical modeling.
MF.2 Gather information, make assumptions, and define variables related to the problem.	
MF.3 Create a model and arrive at a solution to explain the problem presented.	
MF.4 Analyze and revise models, as necessary.	
MF.5 Evaluate the model and interpret solutions generated from other models. Draw and validate conclusions.	

Framework for Statistical Reasoning	Aligned Components of *Eureka Math*
SR Create statistical investigative questions that can be answered by collecting, analyzing, and interpreting data with up to 10 data points.	Lessons in Module 1 engage students in statistical reasoning. *Supplemental material is necessary to fully address the Framework for Statistical Reasoning.*
SR.1 Ask: Generate and ask questions to investigate situations within the classroom.	
SR.2 Collect: Collect data to answer a statistical investigative question.	
SR.3 Analyze: Represent the findings from generated questions using objects and pictures.	
SR.4 Analyze: Explain the findings based on the data collected and represented on graphs.	

Numerical Reasoning—counting, money, place value, numbers to 20, addition, subtraction and fluency

K.NR.1 Demonstrate and explain the relationship between numbers and quantities up to 20; connect counting to cardinality (the last number counted represents the total quantity in a set).

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.1.1 Count up to 20 objects in a variety of structured arrangements and up to 10 objects in a scattered arrangement.	GK M1 Topic C: Numbers to 5 in Different Configurations, Math Drawings, and Expressions
	GK M1 Topic D: The Concept of Zero and Working with Numbers 0–5
	GK M1 Topic E: Working with Numbers 6–8 in Different Configurations
	GK M1 Lesson 23: Organize and count 9 varied geometric objects in linear and array (3 threes) configurations. Place objects on 5-group mat. Match with numeral 9.
	GK M1 Lesson 24: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with a pencil. Number each object.
	GK M1 Lesson 25: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10.
	GK M1 Lesson 26: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10.
	GK M1 Lesson 27: Count 10 objects, and move between all configurations.
	GK M1 Lesson 37: Culminating task.
	GK M5 Lesson 1: Count straws into piles of ten; count the piles as 10 ones.
	GK M5 Lesson 2: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and _____ ones.
	GK M5 Lesson 3: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and _____ ones.
	GK M5 Lesson 12: Represent numbers 20 to 11 in tower configurations decreasing by 1—a pattern of 1 smaller.
	GK M5 Lesson 13: Show, count, and write to answer how many questions in linear and array configurations.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.1.1 *continued*	GK M5 Lesson 14: Show, count, and write to answer how many questions with up to 20 objects in circular configurations.
	GK M5 Topic E: Represent and Apply Compositions and Decompositions of Teen Numbers
	GK M6 Lesson 8: Culminating task.
K.NR.1.2 When counting objects, explain that the last number counted represents the total quantity in a set (cardinality), regardless of the arrangement and order.	GK M1 Lesson 5: Classify items into three categories, determine the count in each, and reason about how the last number named determines the total.
	GK M1 Lesson 6: Sort categories by count. Identify categories with 2, 3, and 4 within a given scenario.
	GK M1 Topic C: Numbers to 5 in Different Configurations, Math Drawings, and Expressions
	GK M1 Topic D: The Concept of Zero and Working with Numbers 0–5
	GK M1 Topic E: Working with Numbers 6–8 in Different Configurations
	GK M1 Lesson 23: Organize and count 9 varied geometric objects in linear and array (3 threes) configurations. Place objects on 5-group mat. Match with numeral 9.
	GK M1 Lesson 24: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with a pencil. Number each object.
	GK M1 Lesson 25: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10.
	GK M1 Lesson 26: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10.
	GK M1 Lesson 27: Count 10 objects, and move between all configurations.
	GK M1 Topic G: One More Than with Numbers 0–10
	GK M1 Topic H: One Less Than with Numbers 0–10

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.1.3 Given a number from 1–20, identify the number that is one more or one less.	GK M1 Topic G: One More Than with Numbers 0–10 GK M1 Topic H: One Less Than with Numbers 0–10 GK M3 Lesson 23: Reason to identify and make a set that has 1 more. GK M4 Lesson 38: Add 1 to numbers 1–9 to see the pattern of the next number using 5-group drawings and equations. GK M5 Lesson 10: Build a Rekenrek to 20. GK M5 Lesson 11: Show, count, and write numbers 11 to 20 in tower configurations increasing by 1—a pattern of 1 larger. GK M5 Lesson 12: Represent numbers 20 to 11 in tower configurations decreasing by 1—a pattern of 1 smaller. GK M5 Lesson 13: Show, count, and write to answer how many questions in linear and array configurations.
K.NR.1.4 Identify pennies, nickels, and dimes and know their name and value.	G1 M6 Lesson 20: Identify pennies, nickels, and dimes by their image, name, or value. Decompose the values of nickels and dimes using pennies and nickels.

Numerical Reasoning—counting, money, place value, numbers to 20, addition, subtraction and fluency

K.NR.2 Use count sequences within 100 to count forward and backward in sequence.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.2.1 Count forward to 100 by tens and ones and backward from 20 by ones.	GK M5 Topic D: Extend the Say Ten and Regular Count Sequence to 100 *Supplemental material is necessary to address counting backwards from 20 by ones.*
K.NR.2.2 Count forward beginning from any number within 100 and count backward from any number within 20.	GK M1 Topic G: One More Than with Numbers 0–10 GK M5 Lesson 13: Show, count, and write to answer how many questions in linear and array configurations. GK M5 Lesson 16: Count within tens by ones. GK M5 Lesson 17: Count across tens when counting by ones through 40. GK M5 Lesson 18: Count across tens by ones to 100 with and without objects. GK M5 Lesson 19: Explore numbers on the Rekenrek. *Supplemental material is necessary to address counting backwards from any number within 20.*

Numerical Reasoning—counting, money, place value, numbers to 20, addition, subtraction and fluency

K.NR.3 Use place value understanding to compose and decompose numbers from 11–19.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.3.1 Describe numbers from 11 to 19 by composing (putting together) and decomposing (breaking apart) the numbers into ten ones and some more ones.	GK M5 Lesson 2: Count 10 objects within counts of 10 to 20 objects, and describe as 10 ones and _____ ones. GK M5 Lesson 3: Count and circle 10 objects within images of 10 to 20 objects, and describe as 10 ones and _____ ones. GK M5 Lesson 4: Count straws the Say Ten way to 19; make a pile for each ten. GK M5 Lesson 5: Count straws the Say Ten way to 20; make a pile for each ten. GK M5 Topic B: Compose Numbers 11–20 from 10 Ones and Some Ones; Represent and Write Teen Numbers GK M5 Lesson 11: Show, count, and write numbers 11 to 20 in tower configurations increasing by 1—a pattern of 1 larger. GK M5 Lesson 12: Represent numbers 20 to 11 in tower configurations decreasing by 1—a pattern of 1 smaller. GK M5 Lesson 13: Show, count, and write to answer how many questions in linear and array configurations. GK M5 Lesson 14: Show, count, and write to answer how many questions with up to 20 objects in circular configurations. GK M5 Topic E: Represent and Apply Compositions and Decompositions of Teen Numbers

Numerical Reasoning—counting, money, place value, numbers to 20, addition, subtraction and fluency

K.NR.4 Identify, write, represent, and compare numbers up to 20.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.4.1 Identify written numerals 0–20 and represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	GK M1 Topic D: The Concept of Zero and Working with Numbers 0–5 GK M1 Topic E: Working with Numbers 6–8 in Different Configurations GK M1 Lesson 23: Organize and count 9 varied geometric objects in linear and array (3 threes) configurations. Place objects on 5-group mat. Match with numeral 9. GK M1 Lesson 24: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with a pencil. Number each object. GK M1 Lesson 25: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10. GK M1 Lesson 26: Count 10 objects in linear and array configurations (2 fives). Match with numeral 10. Place on the 5-group mat. Dialogue about 9 and 10. Write numeral 10. GK M1 Lesson 27: Count 10 objects, and move between all configurations. GK M5 Lesson 6: Model with objects and represent numbers 10 to 20 with place value or Hide Zero cards. GK M5 Lesson 7: Model and write numbers 10 to 20 as number bonds. GK M5 Lesson 8: Model teen numbers with materials from abstract to concrete. GK M5 Lesson 14: Show, count, and write to answer how many questions with up to 20 objects in circular configurations. GK M6 Lesson 8: Culminating task.
K.NR.4.2 Compare two sets of up to 10 objects and identify whether the number of objects in one group is more or less than the other group, using the words "greater than," "less than," or "the same as".	GK M3 Lesson 5: Determine which linking cube stick is longer than or shorter than the other. GK M3 Topic E: Are There Enough? GK M3 Topic F: Comparison of Sets Within 10 GK M3 Topic G: Comparison of Numerals

Numerical Reasoning—counting, money, place value, numbers to 20, addition, subtraction and fluency

K.NR.5 Explain the concepts of addition, subtraction, and equality and use these concepts to solve real-life problems within 10.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.5.1 Compose (put together) and decompose (break apart) numbers up to 10 using objects and drawings.	GK M1 Lesson 8: Answer how many questions to 5 in linear configurations (5-group), with 4 in an array configuration. Compare ways to count to five fingers. GK M1 Lesson 9: Within linear and array dot configurations of numbers 3, 4, and 5, find hidden partners. GK M1 Lesson 10: Within circular and scattered dot configurations of numbers 3, 4, and 5, find hidden partners. GK M1 Lesson 11: Model decompositions of 3 with materials, drawings, and expressions. Represent the decomposition as $1 + 2$ and $2 + 1$. GK M1 Lesson 14: Write numerals 1–3. Represent decompositions with materials, drawings, and equations, $3 = 2 + 1$ and $3 = 1 + 2$. GK M1 Lesson 16: Write numerals 1–5 in order. Answer and make drawings of decompositions with totals of 4 and 5 without equations. GK M1 Lesson 37: Culminating task. GK M3 Lesson 7: Compare objects using the same as. GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5 GK M4 Topic B: Decompositions of 6, 7, and 8 into Number Pairs GK M4 Lesson 13: Represent decomposition and composition addition stories to 6 with drawings and equations with no unknown. GK M4 Lesson 14: Represent decomposition and composition addition stories to 7 with drawings and equations with no unknown. GK M4 Lesson 15: Represent decomposition and composition addition stories to 8 with drawings and equations with no unknown. GK M4 Lesson 18: Solve both addends unknown word problems to 8 to find addition patterns in number pairs.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.5.1 *continued*	GK M4 Lesson 20: Solve take from with result unknown expressions and equations using the minus sign with no unknown.
	GK M4 Lesson 21: Represent subtraction story problems using objects, drawings, expressions, and equations.
	GK M4 Lesson 22: Decompose the number 6 using 5-group drawings by breaking off or removing a part, and record each decomposition with a drawing and subtraction equation.
	GK M4 Lesson 23: Decompose the number 7 using 5-group drawings by hiding a part, and record each decomposition with a drawing and subtraction equation.
	GK M4 Lesson 24: Decompose the number 8 using 5-group drawings and crossing off a part, and record each decomposition with a drawing and subtraction equation.
	GK M4 Topic E: Decompositions of 9 and 10 into Number Pairs
	GK M4 Topic F: Addition with Totals of 9 and 10
	GK M4 Topic G: Subtraction from 9 and 10
	GK M4 Lesson 41: Culminating task.
K.NR.5.2 Represent addition and subtraction within 10 from a given authentic situation using a variety of representations and strategies.	GK M1 Lesson 28: Act out result unknown story problems without equations.
	GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5
	GK M4 Topic B: Decompositions of 6, 7, and 8 into Number Pairs
	GK M4 Topic C: Addition with Totals of 6, 7, and 8
	GK M4 Topic D: Subtraction from Numbers to 8
	GK M4 Topic E: Decompositions of 9 and 10 into Number Pairs
	GK M4 Topic F: Addition with Totals of 9 and 10
	GK M4 Topic G: Subtraction from 9 and 10
	GK M4 Topic H: Patterns with Adding 0 and 1 and Making 10
	GK M6 Lesson 8: Culminating task.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.5.3 Use a variety of strategies to solve addition and subtraction problems within 10.	GK M4 Lesson 16: Solve add to with result unknown word problems to 8 with equations. Box the unknown. GK M4 Lesson 17: Solve put together with total unknown word problems to 8 using objects and drawings. GK M4 Lesson 18: Solve both addends unknown word problems to 8 to find addition patterns in number pairs. GK M4 Topic D: Subtraction from Numbers to 8 GK M4 Topic E: Decompositions of 9 and 10 into Number Pairs GK M4 Lesson 31: Solve add to with total unknown and put together with total unknown problems with totals of 9 and 10. GK M4 Lesson 32: Solve both addends unknown word problems with totals of 9 and 10 using 5-group drawings. GK M4 Lesson 34: Represent subtraction story problems by breaking off, crossing out, and hiding a part. GK M4 Lesson 35: Decompose the number 9 using 5-group drawings, and record each decomposition with a subtraction equation. GK M4 Lesson 36: Decompose the number 10 using 5-group drawings, and record each decomposition with a subtraction equation. GK M4 Lesson 37: Add or subtract 0 to get the same number and relate to word problems wherein the same quantity that joins a set, separates. GK M4 Lesson 38: Add 1 to numbers 1–9 to see the pattern of the next number using 5-group drawings and equations. GK M4 Lesson 39: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing. GK M6 Lesson 8: Culminating task.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.NR.5.4 Fluently add and subtract within 5 using a variety of strategies to solve practical, mathematical problems.	GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5

Patterning & Algebraic Reasoning—repeating patterns and time

K.PAR.6 Explain, extend, and create repeating patterns with a repetition, not exceeding 4 and describe patterns involving the passage of time.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.PAR.6.1 Create, extend, and describe repeating patterns with numbers and shapes, and explain the rationale for the pattern.	GK M1 Topic G: One More Than with Numbers 0–10 GK M1 Topic H: One Less Than with Numbers 0–10 GK M4 Lesson 10: Model decompositions of 6–8 using linking cube sticks to see patterns. GK M4 Lesson 12: Use 5-groups to represent the $5 + n$ pattern to 8. GK M4 Lesson 18: Solve both addends unknown word problems to 8 to find addition patterns in number pairs. GK M4 Lesson 38: Add 1 to numbers 1–9 to see the pattern of the next number using 5-group drawings and equations. *Supplemental material is necessary to address patterns with shapes.*
K.PAR.6.2 Describe patterns involving the passage of time using words and phrases related to actual events.	*Supplemental material is necessary to address this standard.*

Measurement & Data Reasoning—attributes of objects, classifying objects

K.MDR.7 Observe, describe, and compare the physical and measurable attributes of objects and analyze graphical displays of data.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.MDR.7.1 Directly compare, describe, and order common objects, using measurable attributes (length, height, width, or weight) and describe the difference.	GK M3 Topic A: Comparison of Length and Height GK M3 Lesson 4: Compare the length of linking cube sticks to a 5-stick. GK M3 Lesson 5: Determine which linking cube stick is longer than or shorter than the other. GK M3 Lesson 6: Compare the length of linking cube sticks to various objects. GK M3 Topic C: Comparison of Weight GK M3 Topic D: Comparison of Volume GK M3 Topic H: Clarification of Measurable Attributes GK M6 Lesson 8: Culminating task.
K.MDR.7.2 Classify and sort up to ten objects into categories by an attribute; count the number of objects in each category and sort the categories by count.	GK M1 Topic A: Attributes of Two Related Objects GK M1 Topic B: Classify to Make Categories and Count GK M2 Lesson 9: Identify and sort shapes as two-dimensional or three-dimensional, and recognize two-dimensional and three-dimensional shapes in different orientations and sizes.
K.MDR.7.3 Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.	*Supplemental material is necessary to address this standard.*

Geometric & Spatial Reasoning—2D and 3D shapes, relative locations, attributes

K.GSR.8 Identify, describe, and compare basic shapes encountered in the environment, and form two-dimensional shapes and three-dimensional figures.

Georgia's K–12 Mathematics Standards	Aligned Components of *Eureka Math*
K.GSR.8.1 Identify, sort, classify, analyze, and compare two-dimensional shapes and three-dimensional figures, in different sizes and orientations, using informal language to describe their similarities, differences, number of sides and vertices, and other attributes.	GK M2 Lesson 1: Find and describe flat triangles, squares, rectangles, hexagons, and circles using informal language without naming. GK M2 Lesson 2: Explain decisions about classifications of triangles into categories using variants and non-examples. Identify shapes as triangles. GK M2 Lesson 3: Explain decisions about classifications of rectangles into categories using variants and non-examples. Identify shapes as rectangles. GK M2 Lesson 4: Explain decisions about classifications of hexagons and circles and identify them by name. Make observations using variants and non-examples. GK M2 Lesson 6: Find and describe solid shapes using informal language without naming. GK M2 Lesson 7: Explain decisions about classification of solid shapes into categories. Name the solid shapes. GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes
K.GSR.8.2 Describe the relative location of an object using positional words.	GK M2 Lesson 5: Describe and communicate positions of all flat shapes using the words above, below, beside, in front of, next to, and behind. GK M2 Lesson 8: Describe and communicate positions of all solid shapes using the words above, below, beside, in front of, next to, and behind.
K.GSR.8.3 Use basic shapes to represent specific shapes found in the environment by creating models and drawings.	GK M6 Lesson 1: Describe the systematic construction of flat shapes using ordinal numbers. GK M6 Lesson 2: Build flat shapes with varying side lengths and record with drawings. GK M6 Lesson 3: Compose solids using flat shapes as a foundation.
K.GSR.8.4 Use two or more basic shapes to form larger shapes.	GK M6 Topic B: Composing and Decomposing Shapes