Grade K | Arkansas 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

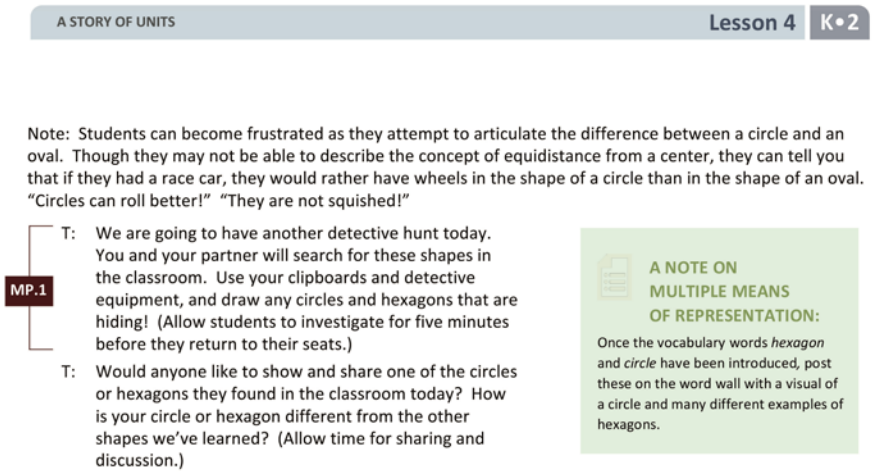
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

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.	

Number & Place Value

Counting & Number Foundations

Students know the number names and count sequence while exploring the relationships between numbers.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.NPV.1 Count to 100 by ones and tens; count forward by ones from any given number up to 100.	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 Topic D: Extend the Say Ten and Regular Count Sequence to 100
K.NPV.2 Count a set of objects up to 20 using one-to-one correspondence, demonstrating that the last number stated indicates the number of objects in the set regardless of the arrangement.	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: Numerals 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 GK M5 Lesson 1: Count straws into piles of ten; count the piles as 10 ones.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.NPV.2 ***continued***	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. 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 4: Describe the relative position of shapes using ordinal numbers. GK M6 Lesson 8: Culminating task.
K.NPV.3 Identify the position of objects in a set using ordinal numbers (first, second, third, etc.).	GK M6 Lesson 1: Describe the systematic construction of flat shapes using ordinal numbers. GK M6 Lesson 4: Describe the relative position of shapes using ordinal numbers. *Supplemental material is necessary to address this standard.*
K.NPV.4 Identify quickly a number of items in a set from 0 to 10 without counting.	*Supplemental material is necessary to address this standard.*

Number & Place Value

Place Value

Students understand the base ten place value system.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.NPV.5 Read, write, and represent whole numbers from 0 to 20.	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 counts 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.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.NPV.6 Show equivalent forms of whole numbers up to 20 as groups of tens and ones, using manipulatives and drawings.	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

Number & Place Value

Comparison

Students use place value understanding to compare numbers.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.NPV.7 Use matching and counting strategies to compare the number of objects in one group to the number of objects in another group (0 to 10) using the terms greater than, less than, or equal.	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
K.NPV.8 Compare two whole numbers, using the terms greater than, less than, or equal.	GK M3 Lesson 20: Relate more and less to length. GK M3 Lesson 22: Identify and create a set that has the same number of objects. GK M3 Lesson 23: Reason to identify and make a set that has 1 more. GK M3 Lesson 24: Reason to identify and make a set that has 1 less. GK M3 Topic G: Comparison of Numerals

Computation & Algebraic Reasoning

Operations & Properties

Students perform operations using place value understanding and properties of operations.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.CAR.1 Use objects, fingers, mental images, drawings, sounds, acting out situations, or verbal explanations to represent addition and subtraction from 0 to 10.	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

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.CAR.1 ***continued***	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.
K.CAR.2 Use objects or drawings to decompose numbers less than or equal to 10 into pairs in more than one way, recording each decomposition.	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.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.CAR.2 ***continued***	GK M4 Lesson 18: Solve both addends unknown word problems to 8 to find addition patterns in number pairs. 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.CAR.3 Use a drawing or equation to find the number that makes 10 when added to a given number.	GK M4 Lesson 39: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing. GK M4 Lesson 40: Find the number that makes 10 for numbers 1–9, and record each with an addition equation. GK M5 Lesson 10: Build a Rekenrek to 20. GK M6 Lesson 8: Culminating task.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.CAR.4 Use manipulatives and various strategies to fluently add and subtract within 10.	GK M4 Topic A: Compositions and Decompositions of 2, 3, 4, and 5 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.

Computation & Algebraic Reasoning

Problem Solving

Students solve real-world problems.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.CAR.5 Solve real-world problems involving addition and subtraction within 10, using objects, drawings, or equations to represent the problem.	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.

Geometry & Measurement

Shapes

Students analyze attributes of shapes to develop generalizations about their properties.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.GM.1 Describe the positions of objects and geometric shapes in the environment.	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 flat shapes using the words above, below, beside, in front of, next to, and behind.
K.GM.2 Name shapes correctly regardless of their orientation or overall size.	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 triangles. 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 7: Explain decisions about classification of solid shapes into categories. Name the solid shapes. GK M2 Lesson 8: Describe and communicate positions of all flat shapes using the words above, below, beside, in front of, next to, and behind.
K.GM.3 Identify two-dimensional attributes of three-dimensional objects.	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 triangles. 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 7: Explain decisions about classification of solid shapes into categories. Name the solid shapes. GK M2 Lesson 8: Describe and communicate positions of all flat shapes using the words above, below, beside, in front of, next to, and behind.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.GM.4 Analyze and sort a variety of two and three-dimensional shapes using informal language to describe their similarities, differences, and other attributes.	GK M2 Topic A: Two-Dimensional Flat Shapes GK M2 Topic B: Three-Dimensional Solid Shapes GK M2 Topic C: Two-Dimensional and Three-Dimensional Shapes 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. GK M6 Lesson 5: Compose flat shapes using pattern blocks and drawings.
K.GM.5 Compose and draw shapes found in the world using objects (e.g., straws, toothpicks, clay balls).	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.

Geometry & Measurement

Measurement Concepts

Students develop understanding of measurement terms and concepts.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.GM.6 Make direct comparisons of the length, capacity, weight, and temperature of objects, recognizing which object is shorter/longer, lighter/heavier, warmer/cooler, or holds more.	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.

Geometry & Measurement

Time & Money

Students explore time and money values and concepts.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.GM.7 Understand concepts of time, recognizing that clocks and calendars are tools that measure time.	*Supplemental material is necessary to address this standard.*
K.GM.8 Identify pennies and dimes by name and value.	*Supplemental material is necessary to address this standard.*

Data Analysis

Charts, Graphs, & Tables

Students organize and analyze data.

Arkansas Mathematics Standards	Aligned Components of *Eureka Math*
K.DA.1 Collect, sort, and organize data into two or three categories, using real-object graphs and picture graphs.	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.