Grade K | Indiana Academic Standards for Mathematics 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

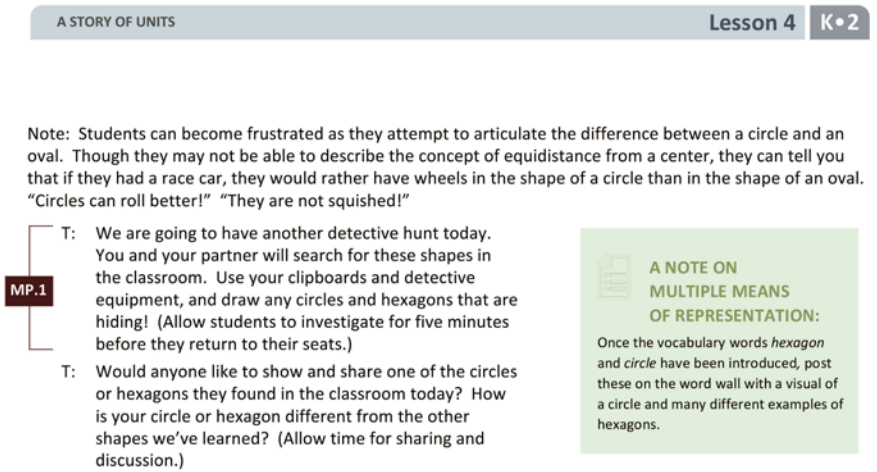
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

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

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

Number Sense

Students explore the foundations of numbers through counting strategies, one-to-one correspondence, and place value of numbers up to 20.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.NS.1 Count to at least 100 by ones and tens. Count by one from any given number. (E)	GK M1 Topic G: One More 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.NS.2 Write whole numbers from 0 to 20 and identify number words from 0 to 10. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects). (E)	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. *Supplemental material is necessary to address identifying number words from 0 to 10.*

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.NS.3 Say the number names in standard order when counting objects, pairing each object with one and only one number name and each number name with one and only one object. Understand that the last number name said describes the number of objects counted and that the number of objects is the same regardless of their arrangement or the order in which they were counted. Count out the number of objects, given a number from 1 to 20. (E)	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 with Numbers 0–10 GK M1 Topic H: One Less with Numbers 0–10 GK M3 Lesson 23: Reason to identify and make a set that has 1 more. 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 10: Build a Rekenrek to 20.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.NS.3 ***continued***	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 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.NS.4 Identify sets of 1 to 10 objects in patterned arrangements and tell how many without counting. (E)	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. *Supplemental material is necessary to address telling how many without counting.*

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.NS.5 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (e.g., by using matching and counting strategies).	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.NS.6 Compare the values of two numbers from 1 to 20 presented as written numerals.	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 *Supplemental material is necessary to address comparing values of two numbers from 11 to 20 as written numerals.*

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.NS.7 Define and model a "ten" as a group of ten ones. Model equivalent forms of whole numbers from 10 to 20 as groups of tens and ones using objects and drawings. (E)	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

Computation and Algebraic Thinking

Within the numbers 1–10, students use objects and drawings to model the composing (addition) and decomposing (subtraction) of numbers, and solve real-world problems. Students investigate beginning algebra concepts through simple repeating and growing patterns.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.CA.1 Solve real-world problems that involve addition and subtraction within 10 using modeling with objects or drawings. (E)	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.
K.CA.2 Use objects or drawings to model the decomposition of numbers less than 10 into pairs in more than one way. Identify corresponding equations. (E)	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.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.CA.2 ***continued***	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. 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.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.CA.3 Find the number that makes 10 when added to the given number for any number from 1 to 9 (e.g., by using objects or drawings), and record the answer with a drawing or an equation. (E)	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.
K.CA.4 Create, extend, and give an appropriate rule for simple repeating and growing patterns with numbers and shapes.	GK M1 Topic G: One More with Numbers 0–10 GK M1 Topic H: One Less 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.*

Geometry

Students investigate and compare two- and three-dimensional shapes based on simple attributes.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.G.1 Compare two- and three-dimensional shapes in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners"), and other attributes (e.g., having sides of equal length).	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.

Measurement

Students investigate beginning concepts of length, weight, capacity, temperature, and time through observations of direct comparisons.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.M.1 Make direct comparisons of the length, capacity, weight, and temperature of objects, and identify which object is shorter, longer, taller, lighter, heavier, warmer, cooler, or holds more. (E)	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. *Supplemental material is necessary to address direct comparisons of temperature.*

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.M.2 Identify and use appropriate terms to describe intervals of time including: morning, afternoon, evening, today, yesterday, tomorrow, day, week, month, and year; describe how calendars and clocks are tools to measure time.	*Supplemental material is necessary to address this standard.*

Data Analysis

Students begin interacting with data to create and interpret data for patterns and comparison.

Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math*
K.DA.1 With guidance, collect and organize data into simple bar graphs, pictographs, and/or tables to identify patterns and make comparisons. (E)	*Supplemental material is necessary to address this standard.*