# EUREKA MATH<sup>2</sup>.

# **Grade K** | West Virginia College- and Career-Readiness Standards for Mathematics Correlation to *Eureka Math*<sup>2®</sup>

When the original *Eureka Math*<sup>®</sup> curriculum was released, it quickly became the most widely used K-5 mathematics curriculum in the country. Now, the Great Minds<sup>®</sup> teacher-writers have created *Eureka Math*<sup>2®</sup>, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math*<sup>2</sup> carefully sequences mathematical content to maximize vertical alignment-a principle tested and proven to be essential in students' mastery of math-from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* and moments that have been delighting students and teachers for years, it also boasts these exciting new features:

# Teachability

*Eureka Math*<sup>2</sup> employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering highquality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

### Accessibility

*Eureka Math*<sup>2</sup> incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math*<sup>2</sup> teacher-writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

# **Digital Engagement**

The digital elements of *Eureka Math*<sup>2</sup> add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Mathematical Habits of Mind	Aligned Components of Eureka Math <sup>2</sup>
MHM1.	Lessons in every module engage students in mathematical habits
Make sense of problems and persevere in solving them.	of mind. These are indicated in margin notes included with every lesson.
MHM2.	Lessons in every module engage students in mathematical habits
Reason abstractly and quantitatively.	of mind. These are indicated in margin notes included with every lesson.
MHM3.	Lessons in every module engage students in mathematical habits
Construct viable arguments and critique the reasoning of others.	of mind. These are indicated in margin notes included with every lesson.
MHM4.	Lessons in every module engage students in mathematical habits
Model with mathematics.	of mind. These are indicated in margin notes included with every lesson.
MHM5.	Lessons in every module engage students in mathematical habits
Use appropriate tools strategically.	of mind. These are indicated in margin notes included with every lesson.
MHM6.	Lessons in every module engage students in mathematical habits
Attend to precision.	of mind. These are indicated in margin notes included with every lesson.
MHM7.	Lessons in every module engage students in mathematical habits
Look for and make use of structure.	of mind. These are indicated in margin notes included with every lesson.
MHM8.	Lessons in every module engage students in mathematical habits
Look for and express regularity in repeated reasoning.	of mind. These are indicated in margin notes included with every lesson.

# **Counting and Cardinality**

Know number names and the count sequence.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
M.K.1	K M1 Lesson 4: Classify objects into three categories and count.
Count to $100$ by ones and by tens.	K M1 Lesson 6: Organize, count, and represent a collection of objects.
	K M1 Lesson 12: Write numerals 4 and 5 to answer how many questions.
	K M1 Lesson 19: Organize, count, and represent a collection of objects.
	K M1 Lesson 26: Write numeral 8.
	K M1 Lesson 28: Order numerals 1-10 and reason about an unknown number in the number sequence.
	K M1 Lesson 33: Organize, count, and represent a collection of objects.
	K M6 Lesson 2: Find 10 ones in a teen number.
	K M6 Lesson 5: Reason about a number's position in the number sequence.
	K M6 Lesson 14: Count by tens.
	K M6 Lesson 15: Count by tens by using math tools.
	K M6 Lesson 16: Use the structure of ten to count to 100.
	K M6 Lesson 17: Use patterns in the number sequence to count by ones within 100.
	K M6 Lesson 18: Count within and across decades when counting by ones, part 1.
	K M6 Lesson 19: Count within and across decades when counting by ones, part 2.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of Eureka Math <sup>2</sup>
М.К.2	K M5 Lesson 18: Count starting from a number other than $1$ to find the total.
Count forward beginning from a given	K M5 Lesson 22: Identify and extend linear patterns.
number within the known sequence	K M5 Lesson 23: Use a pattern to make a prediction.
(instead of having to begin at 1).	K M6 Lesson 5: Reason about a number's position in the number sequence.
	K M6 Lesson 16: Use the structure of ten to count to 100.
	K M6 Lesson 17: Use patterns in the number sequence to count by ones within 100.
	K M6 Lesson 18: Count within and across decades when counting by ones, part 1.
	K M6 Lesson 19: Count within and across decades when counting by ones, part 2.
М.К.3	K M1 Lesson 5: Classify objects into three categories, count, and match to a numeral.
Write numbers from 0 to 20. Represent a number of objects with a written	K M1 Lesson 7: Practice counting accurately.
	K M1 Lesson 11: Write numerals 1-3 to answer <i>how many</i> questions.
numeral 0-20 (with 0 representing a count of no objects).	K M1 Lesson 12: Write numerals 4 and 5 to answer <i>how many</i> questions.
0	K M1 Lesson 14: Understand the meaning of zero and write the numeral.
	K M1 Lesson 21: Count sets in circular configurations and match to a numeral.
	K M1 Lesson 22: Count sets in scattered configurations and match to a numeral.
	K M1 Lesson 25: Write numerals 6 and 7.
	K M1 Lesson 26: Write numeral 8.
	K M1 Lesson 27: Write numerals 9 and 10.
	K M6 Lesson 3: Write numerals 11-20.
	K M6 Lesson 17: Use patterns in the number sequence to count by ones within 100.

# **Counting and Cardinality**

Count to tell the number of objects.

## West Virginia College- and Career-Readiness Standards for Mathematics

<b>M.K.4</b> Understand the relationship between numbers and quantities; connect counting to cardinality.	This standard is fully addressed by the lessons aligned to its subsections.
M.K.4.a	K M1 Lesson 6: Organize, count, and represent a collection of objects.
When counting objects, say the number	K M1 Lesson 7: Practice counting accurately.
names in the standard order, pairing each	K M1 Lesson 13: Count out enough objects and write the numeral.
object with one and only one number name and each number name with one	K M1 Lesson 19: Organize, count, and represent a collection of objects.
and only one object.	K M1 Lesson 33: Organize, count, and represent a collection of objects.
M.K.4.b	K M1 Lesson 6: Organize, count, and represent a collection of objects.
Understand that the last number name	K M1 Lesson 7: Practice counting accurately.
said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.	K M1 Lesson 9: Conserve number regardless of the arrangement of objects.
	K M1 Lesson 13: Count out enough objects and write the numeral.
	K M1 Lesson 19: Organize, count, and represent a collection of objects.
	K M1 Lesson 20: Count objects in 5-group and array configurations and match to a numeral.
	K M1 Lesson 23: Conserve number regardless of the order in which objects are counted.
	K M1 Lesson 33: Organize, count, and represent a collection of objects.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
М.К.4.с	K M1 Lesson 29: Model the pattern of $1$ more in the forward count sequence.
Understand that each successive number name refers to a quantity that is one larger.	K M1 Lesson 30: Build number stairs to show the pattern of 1 more in the forward count sequence. K M1 Lesson 31: Model the pattern of 1 less in the backward count sequence.
	K M1 Lesson 32: Build number stairs to show the pattern of 1 less in the backward count sequence. K M6 Lesson 4: Order numerals 0-20.
M.K.5	K M1 Lesson 3: Classify objects into two categories and count.
Count to answer questions about as many as 20 things arranged in a line, a rectangular array, a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	<ul> <li>K M1 Lesson 6: Organize, count, and represent a collection of objects.</li> <li>K M1 Lesson 7: Practice counting accurately.</li> <li>K M1 Lesson 8: Count sets in linear, array, and scattered configurations.</li> <li>K M1 Lesson 10: Count out a group of objects to match a numeral.</li> <li>K M1 Lesson 19: Organize, count, and represent a collection of objects.</li> <li>K M1 Lesson 20: Count objects in 5-group and array configurations and match to a numeral.</li> <li>K M1 Lesson 21: Count sets in circular configurations and match to a numeral.</li> <li>K M1 Lesson 22: Count sets in scattered configurations and match to a numeral.</li> <li>K M1 Lesson 24: Count out a group of objects to match a numeral.</li> <li>K M1 Lesson 33: Organize, count, and represent a collection of objects.</li> </ul>
	K M6 Lesson 1: Describe teen numbers as 10 ones and ones. K M6 Lesson 6: Count out a group of objects to match a numeral. K M6 Lesson 7: Decompose numbers 10-20 with 10 as a part. K M6 Lesson 12: Investigate different ways to decompose teen numbers.

# **Counting and Cardinality**

Compare numbers.

### West Virginia College- and Career-Readiness Standards for Mathematics

#### M.K.6 K M3 Lesson 12: Relate more and fewer to length. Identify whether the number of objects K M3 Lesson 13: Compare sets by using more than, fewer than, and the same number as. in one group is greater than, less than, K M3 Lesson 14: Use number to compare sets with like units. or equal to the number of objects K M3 Lesson 16: Count and compare sets with unlike units. in another group. K M3 Lesson 17: Count and compare sets in pictures. K M3 Lesson 21: Describe and compare several measurable attributes of objects and sets. K M6 Lesson 20: Compare totals in story situations. K M6 Lesson 21: Count and compare sets with more than 10 objects. K M6 Lesson 22: Compare area by comparing number. K M6 Lesson 23: Compare lengths of objects by using 10-sticks and individual cubes. K M3 Lesson 18: Compare the capacity of containers by using numerals. M.K.7 Compare two numbers between 1 and 10 K M3 Lesson 19: Compare numbers by using greater than, less than, and equal to. presented as written numerals. K M3 Lesson 20: Compare two numbers in story situations.

# **Operations and Algebraic Thinking**

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of Eureka Math <sup>2</sup>
М.К.8	K M4 Lesson 4: Decompose a group and record parts and total by using a number bond.
Represent addition and subtraction with	K M4 Lesson 6: Decompose a number in more than one way and record.
objects, fingers, mental images, drawings,	K M4 Lesson 7: Find partners to 5.
sounds, and acting out situations, verbal explanations, expressions, or equations.	K M4 Lesson 10: Sort and record the decomposition with a number bond.
	K M4 Lesson 11: Model put together with total unknown story problems.
	K M4 Lesson 15: Choose a math tool to solve <i>take apart with both addends unknown</i> situations.
	K M5 Topic A: Represent Addition
	K M5 Topic B: Represent Subtraction
	K M5 Lesson 15: Identify the action in a problem to represent and solve it.
	K M5 Lesson 16: Relate addition and subtraction through word problems.
	K M5 Lesson 19: Represent and solve take from with change unknown problems.
	K M5 Lesson 21: Organize drawings to solve problems efficiently.
	K M5 Lesson 24: Solve story problems by using repeated reasoning.
	K M5 Lesson 26: Reason about numbers to add and subtract.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
М.К.9	K M4 Lesson 11: Model put together with total unknown story problems.
Solve addition and subtraction word problems and add and subtract within 10 by using objects or drawings to represent the problem.	K M4 Lesson 12: Draw to represent put together with total unknown story problems.
	K M4 Lesson 13: Choose a math tool to solve put together with total unknown story problems.
	K M4 Lesson 14: Model take apart with both addends unknown situations.
	K M4 Lesson 15: Choose a math tool to solve take apart with both addends unknown situations.
	K M4 Lesson 16: Compose and decompose numbers and shapes.
	K M5 Lesson 3: Represent and solve add to with result unknown story problems.
	K M5 Lesson 10: Represent and solve take from with result unknown story problems.
	K M5 Lesson 12: Relate parts to total in subtraction situations.
	K M5 Lesson 15: Identify the action in a problem to represent and solve it.
	K M5 Lesson 16: Relate addition and subtraction through word problems.
	K M5 Lesson 17: Reason about different units to solve story problems.
	K M6 Lesson 8: Represent teen number compositions and decompositions as addition sentences.
	K M6 Lesson 9: Represent teen number decompositions as subtraction sentences.
	K M6 Lesson 10: Make sense of word problems involving teen numbers.
	K M6 Lesson 11: Represent teen number decompositions as 10 ones and some ones and find a hidden part.
M.K.10	K M4 Lesson 6: Decompose a number in more than one way and record.
Decompose numbers less than or equal	K M4 Lesson 7: Find partners to 5.
to 10 into pairs in more than one way by using objects or drawings, and record each decomposition by a drawing or equation.	K M4 Lesson 8: Find partners to 10.
	K M4 Lesson 18: Use the structure of 5 and 10 to build a rekenrek.
	K M5 Lesson 4: Represent decomposition situations by using number bonds and addition sentences.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
M.K.11	K M5 Lesson 20: Find the number that makes $10$ and record with a number sentence.
For any number from 1 to 9, find the number that makes 10 when added to the given number by using objects or drawings, and record the answer with a drawing or equation.	K M5 Lesson 26: Reason about numbers to add and subtract.
M.K.12	K M5 Lesson 7: Find the total in an addition sentence.
Fluently add and subtract within 5.	K M5 Lesson 14: Find the difference in a subtraction sentence.

# Number and Operations in Base Ten

Work with numbers 11-19 to gain foundations for place value.

West Virginia College- and
<b>Career-Readiness Standards</b>
for Mathematics

M.K.13	K M6 Lesson 1: Describe teen numbers as 10 ones and ones.
Compose and decompose numbers	K M6 Lesson 2: Find 10 ones in a teen number.
from 11 to 19 into ten ones and some further ones by using objects or	K M6 Lesson 3: Write numerals 11-20.
drawings, and record each composition	K M6 Lesson 4: Order numerals 0-20.
or decomposition by a drawing or	K M6 Lesson 6: Count out a group of objects to match a numeral.
equation; understand that these numbers are composed of ten ones (one ten) and	K M6 Lesson 7: Decompose numbers $10-20$ with $10$ as a part.
one, two, three, four, five, six, seven, eight,	K M6 Lesson 8: Represent teen number compositions and decompositions as addition sentences.
or nine ones.	K M6 Lesson 9: Represent teen number decompositions as subtraction sentences.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
M.K.13 continued	K M6 Lesson 10: Make sense of word problems involving teen numbers. K M6 Lesson 11: Represent teen number decompositions as 10 ones and some ones and find a hidden part.

# **Measurement and Data**

Describe and compare measurable attributes.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>M.K.14</b> Describe measurable attributes of objects, such as length or weight and describe several measurable attributes of a single object.	<ul> <li>K M3 Lesson 2: Compare lengths of simple straight objects by using <i>longer than, shorter than,</i> and <i>about the same length as.</i></li> <li>K M3 Lesson 7: Compare weights by using <i>heavier than, lighter than,</i> and <i>about the same weight as.</i></li> <li>K M3 Lesson 12: Relate <i>more</i> and <i>fewer</i> to length.</li> <li>K M3 Lesson 21: Describe and compare several measurable attributes of objects and sets.</li> </ul>
<b>M.K.15</b> Directly compare two objects with a measurable attribute in common, to see which object has "more of" or "less of" the attribute, and describe the difference.	K M3 Topic A: Compare Heights and Lengths K M3 Topic B: Compare Weights K M3 Lesson 21: Describe and compare several measurable attributes of objects and sets.

## **Measurement and Data**

Classify objects and count the number of objects in each category.

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of Eureka Math <sup>2</sup>
M.K.16	K M1 Topic A: Classify to Make Categories and Count
Classify objects into given categories, count the numbers of objects in each category, and sort the categories by count. Category counts should be limited to less than or equal to 10.	K M1 Lesson 15: Sort the same group of objects in more than one way and count. K M1 Lesson 16: Decompose a set shown in a picture. K M3 Lesson 15: Classify flat shapes into groups and compare the number of shapes in each group.

# Geometry

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of Eureka Math <sup>2</sup>
M.K.17	K M2 Lesson 2: Classify shapes as triangles or nontriangles.
Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind and next to.	<ul> <li>K M2 Lesson 3: Classify shapes as circles, hexagons, or neither.</li> <li>K M2 Lesson 4: Classify shapes as rectangles or nonrectangles, with square rectangles as a special case.</li> <li>K M2 Lesson 5: Communicate the position of flat shapes by using position words.</li> <li>K M2 Lesson 14: Compose flat shapes.</li> </ul>

West Virginia College- and Career-Readiness Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
M.K.18	K M2 Lesson 2: Classify shapes as triangles or nontriangles.
Correctly name shapes regardless of their orientations or overall size.	K M2 Lesson 3: Classify shapes as circles, hexagons, or neither.
	K M2 Lesson 4: Classify shapes as rectangles or nonrectangles, with square rectangles as a special case.
	K M2 Lesson 7: Name solid shapes and discuss their attributes.
	K M2 Lesson 11: Construct and classify polygons.
	K M2 Lesson 14: Compose flat shapes.
M.K.19	K M2 Lesson 6: Distinguish between flat and solid shapes.
Through the use of real-life objects, identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").	K M2 Lesson 9: Match solid shapes to their two-dimensional faces.

# Geometry

Analyze, compare, create and compose shapes.

## West Virginia College- and Career-Readiness Standards for Mathematics

M.K.20	K M2 Lesson 1: Find and describe attributes of flat shapes.
M.K.20 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts, and other attributes.	<ul> <li>K M2 Lesson 2: Classify shapes as triangles or nontriangles.</li> <li>K M2 Lesson 3: Classify shapes as circles, hexagons, or neither.</li> <li>K M2 Lesson 4: Classify shapes as rectangles or nonrectangles, with square rectangles as a special case.</li> <li>K M2 Lesson 8: Classify solid shapes based on the ways they can be moved.</li> <li>K M2 Lesson 9: Match solid shapes to their two-dimensional faces.</li> <li>K M2 Lesson 10: Construct a circle.</li> <li>K M2 Lesson 12: Construct solid shapes by using a square base.</li> <li>K M2 Lesson 13: Draw flat shapes.</li> </ul>
<b>M.K.21</b> Model shapes in the world by building shapes from components and drawing shapes.	<ul> <li>K M2 Lesson 15: Compose solid shapes to create a structure that can fit a toy inside.</li> <li>K M2 Lesson 10: Construct a circle.</li> <li>K M2 Lesson 11: Construct and classify polygons.</li> <li>K M2 Lesson 12: Construct solid shapes by using a square base.</li> <li>K M2 Lesson 13: Draw flat shapes.</li> </ul>
<b>M.K.22</b> Compose simple shapes to form larger shapes.	K M4 Lesson 1: Compose flat shapes and count the parts. K M4 Lesson 2: Decompose flat shapes and count the parts. K M4 Lesson 9: Compose shapes in more than one way. K M5 Lesson 25: Extend growing patterns.