Grade K | New York State Next Generation Mathematics Learning Standards Correlation to *Eureka Math²® New York Next Gen*

When the original *Eureka Math®* curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher–writers have created *Eureka Math²® New York Next Gen,* 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 Math² New York Next Gen* 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* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

Eureka Math² New York Next Gen employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality 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 Math² New York Next Gen 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 Math² New York Next Gen* 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 Math² New York Next Gen* 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.

Standards for Mathematical Practice	Aligned Components
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.2 Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.3 Construct viable arguments and critique the reasoning of others.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.4 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.6 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 Look for and make use of structure.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.8 Look for and express regularity in repeated reasoning.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.

Counting and Cardinality

Know number names and the count sequence.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.CC.1 Count to 100 by ones and by tens.	K M1 Lesson 4: Classify objects into three categories and count. 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 34: 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.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.CC.2 Count to 100 by ones beginning from any given number (instead of beginning at 1).	K M5 Lesson 18: Count starting from a number other than 1 to find the total. K M5 Lesson 22: Identify and extend linear patterns. K M5 Lesson 23: Use a pattern to make a prediction. 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.
NY-K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	K M1 Lesson 5: Classify objects into three categories, count, and match to a numeral. K M1 Lesson 7: Practice counting accurately. K M1 Lesson 11: Write numerals 1–3 to answer *how many* questions. K M1 Lesson 12: Write numerals 4 and 5 to answer *how many* questions. 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.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.CC.4 Understand the relationship between numbers and quantities up to 20; connect counting to cardinality.	K M6 Lesson 3: Write numerals 11–20. K M6 Lesson 17: Use patterns in the number sequence to count by ones within 100.
NY-K.CC.4a When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (1:1 correspondence)	K M1 Lesson 6: Organize, count, and represent a collection of objects. K M1 Lesson 7: Practice counting accurately. 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 34: Organize, count, and represent a collection of objects.
NY-K.CC.4b Understand that the last number name said tells the number of objects counted (cardinality). The number of objects is the same regardless of their arrangement or the order in which they were counted.	K M1 Lesson 6: Organize, count, and represent a collection of objects. K M1 Lesson 7: Practice counting accurately. 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 34: Organize, count, and represent a collection of objects.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.CC.4c Understand the concept that each successive number name refers to a quantity that is one larger.	K M1 Lesson 29: Model the pattern of 1 more in the forward count sequence. K M1 Lesson 30: Build number stairs to show the pattern of 1 more in the forward count sequence. K M1 Lesson 32: Model the pattern of 1 less in the backward count sequence. K M1 Lesson 33: Build number stairs to show the pattern of 1 less in the backward count sequence. K M6 Lesson 4: Order numerals 0–20.
NY-K.CC.4d Understand the concept of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.	K M1 Lesson 31: Use ordinal numbers to describe the position and magnitude of whole numbers.
NY-K.CC.5a Answer counting questions using as many as 20 objects arranged in a line, a rectangular array, and a circle. Answer counting questions using as many as 10 objects in a scattered configuration.	K M1 Lesson 3: Classify objects into two categories and count. K M1 Lesson 6: Organize, count, and represent a collection of objects. K M1 Lesson 7: Practice counting accurately. K M1 Lesson 8: Count sets in linear, array, and scattered configurations. 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 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 34: Organize, count, and represent a collection of objects. K M6 Lesson 1: Describe teen numbers as 10 ones and ___ ones. K M6 Lesson 7: Decompose numbers 10–20 with 10 as a part. K M6 Lesson 12: Investigate different ways to decompose teen numbers.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.CC.5b Given a number from 1–20, count out that many objects.	K M1 Lesson 10: Count out a group of objects to match a numeral. K M1 Lesson 24: Count out a group of objects to match a numeral. K M6 Lesson 6: Count out a group of objects to match a numeral.

Counting and Cardinality
Compare numbers.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.CC.6 Identify whether the number of objects in one group is greater than (more than), less than (fewer than), or equal to (the same as) the number of objects in another group.	K M3 Lesson 12: Relate *more* and *fewer* to length. K M3 Lesson 13: Compare sets by using *more than*, *fewer than*, and *the same number as*. K M3 Lesson 14: Use number to compare sets with like units. K M3 Lesson 16: Count and compare sets with unlike units. K M3 Lesson 17: Count and compare sets in pictures. 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.
NY-K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.	K M3 Lesson 18: Compare the capacity of containers by using numerals. K M3 Lesson 19: Compare numbers by using *greater than*, *less than*, and *equal to*. 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.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.OA.1 Represent addition and subtraction using objects, fingers, pennies, drawings, sounds, acting out situations, verbal explanations, expressions, equations, or other strategies.	K M4 Lesson 3: Decompose a group to identify parts and total. K M4 Lesson 4: Decompose a group and record parts and total by using a number bond. K M4 Lesson 6: Decompose a number in more than one way and record. K M4 Lesson 7: Find partners to 5. 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 *take apart with both addends unknown* 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.
NY-K.OA.2a Add and subtract within 10.	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.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.OA.2a *continued*	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.
NY-K.OA.2b Solve addition and subtraction word problems within 10.	K M4 Lesson 11: Model *put together with total unknown* story problems. 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 5: Represent *take apart with both addends unknown* situations with a number sentence. 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.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way. Record each decomposition with a drawing or equation.	K M4 Lesson 5: Sort to decompose a number in more than one way. K M4 Lesson 6: Decompose a number in more than one way and record. K M4 Lesson 7: Find partners to 5. 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.
NY-K.OA.4 Find the number that makes 10 when given a number from 1 to 9. Record the answer with a drawing or equation.	K M5 Lesson 20: Find the number that makes 10 and record with a number sentence. K M5 Lesson 26: Reason about numbers to add and subtract.
NY-K.OA.5 Fluently add and subtract within 5.	K M5 Lesson 7: Find the total in an addition sentence. K M5 Lesson 14: Find the difference in a subtraction sentence.

Operations and Algebraic Thinking
Understand simple patterns.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.OA.6 Duplicate, extend, and create simple patterns using concrete objects.	K M5 Lesson 22: Identify and extend linear patterns. K M5 Lesson 23: Use a pattern to make a prediction. K M5 Lesson 25: Extend growing patterns.

Number and Operations in Base Ten
Work with numbers 11–19 to gain foundations for place value.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.NBT.1 Compose and decompose the numbers from 11 to 19 into ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	K M6 Lesson 1: Describe teen numbers as 10 ones and ___ ones. K M6 Lesson 2: Find 10 ones in a teen number. K M6 Lesson 3: Write numerals 11–20. K M6 Lesson 4: Order numerals 0–20. 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 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.

Measurement and Data
Describe and compare measurable attributes.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.MD.1 Describe measurable attributes of an object(s), such as length or weight, using appropriate vocabulary.	K M3 Lesson 1: Align endpoints to compare lengths by using *taller than* and *shorter than*. K M3 Lesson 2: Compare lengths of simple straight objects by using *longer than*, *shorter than*, and *about the same length as*. K M3 Lesson 7: Compare weights by using *heavier than*, *lighter than*, and *about the same weight as*. K M3 Lesson 12: Relate *more* and *fewer* to length.

New York Next Generation Mathematics Learning Standards	**Aligned Components**
NY-K.MD.2 Directly compare two objects with a common measurable attribute and describe the difference.	K M3 Topic A: Compare Heights and Lengths K M3 Topic B: Compare Weights K M3 Lesson 12: Relate *more* and *fewer* to length.

Measurement and Data

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

New York Next Generation Mathematics Learning Standards	**Aligned Components**
NY-K.MD.3 Classify objects into given categories; count the objects in each category and sort the categories by count.	K M1 Topic A: Classify to Make Categories and Count 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.
NY-K.MD.4 Explore coins (pennies, nickels, dimes, and quarters) and begin identifying pennies and dimes.	*Supplemental material is necessary to address this standard.*

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

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.G.1 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.	K M2 Lesson 2: Classify shapes as triangles or nontriangles. 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 5: Communicate the position of flat shapes by using position words. K M2 Lesson 14: Compose flat shapes.
NY-K.G.2 Name shapes regardless of their orientation or overall size.	K M2 Lesson 2: Classify shapes as triangles or nontriangles. 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.
NY-K.G.3 Understand the difference between two-dimensional (lying in a plane, "flat") and three-dimensional ("solid") shapes.	K M2 Lesson 6: Distinguish between flat and solid shapes. K M2 Lesson 9: Match solid shapes to their two-dimensional faces.

Geometry
Analyze, compare, sort, and compose shapes.

New York Next Generation Mathematics Learning Standards	Aligned Components
NY-K.G.4 Analyze, compare, and sort two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts, and other attributes.	K M2 Lesson 1: Find and describe attributes of flat shapes. K M2 Lesson 2: Classify shapes as triangles or nontriangles. 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 8: Classify solid shapes based on the ways they can be moved. K M2 Lesson 9: Match solid shapes to their two-dimensional faces. K M2 Lesson 10: Construct a circle. K M2 Lesson 12: Construct solid shapes by using a square base. K M2 Lesson 13: Draw flat shapes. K M2 Lesson 15: Compose solid shapes to create a structure that can fit a toy inside.
NY-K.G.5 Model objects in their environment by building and/or drawing shapes.	K M2 Lesson 10: Construct a circle. K M2 Lesson 11: Construct and classify polygons. K M2 Lesson 12: Construct solid shapes by using a square base. K M2 Lesson 13: Draw flat shapes.
NY-K.G.6 Compose larger shapes from simple 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.