Grade 3 | New York Next Generation Mathematics Learning 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

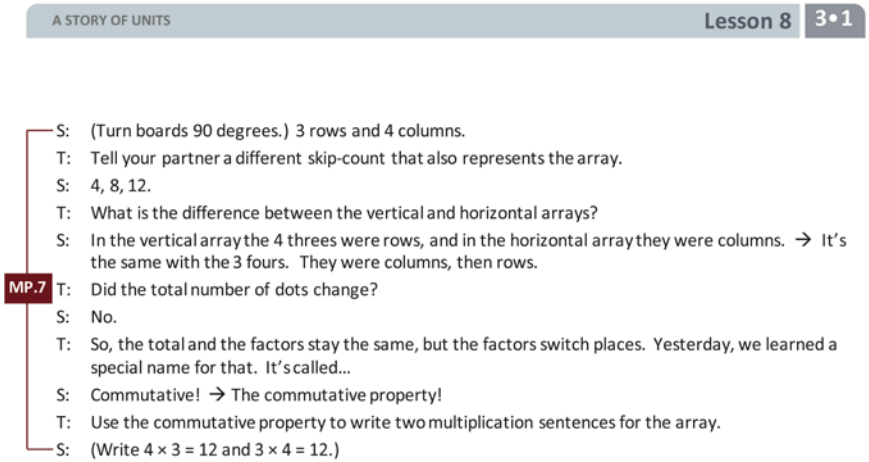
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

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.	

Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.1 Interpret products of whole numbers.	G3 M1 Topic A: Multiplication and the Meaning of the Factors G3 M1 Topic C: Multiplication Using Units of 2 and 3 G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.OA.2 Interpret whole-number quotients of whole numbers.	G3 M1 Topic B: Division as an Unknown Factor Problem G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.	G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 20: Solve two-step word problems involving multiplication and division and assess the reasonableness of answers. G3 M1 Lesson 21: Solve two-step word problems involving all four operations and assess the reasonableness of answers. G3 M3 Lesson 7: Interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7. G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M3 Lesson 3: Multiply and divide with familiar facts using a letter to represent the unknown. G3 M3 Lesson 4: Count by units of 6 to multiply and divide using number bonds to decompose. G3 M3 Lesson 5: Count by units of 7 to multiply and divide using number bonds to decompose. G3 M3 Lesson 7: Interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7. G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.

Operations and Algebraic Thinking

Understand properties of multiplication and the relationship between multiplication and division.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.5 Apply properties of operations as strategies to multiply and divide.	G3 M1 Topic C: Multiplication Using Units of 2 and 3 G3 M1 Lesson 15: Relate arrays to tape diagrams to model the commutative property of multiplication. G3 M1 Lesson 16: Use the distributive property as a strategy to find related multiplication facts. G3 M1 Lesson 18: Apply the distributive property to decompose units. G3 M1 Lesson 19: Apply the distributive property to decompose units. G3 M3 Lesson 1: Study commutativity to find known facts of 6, 7, 8, and 9. G3 M3 Lesson 2: Apply the distributive and commutative properties to relate multiplication facts $5 \times n + n$ to $6 \times n$ and $n \times 6$ where n is the size of the unit.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.5 ***continued***	G3 M3 Lesson 5: Count by units of 7 to multiply and divide using number bonds to decompose. G3 M3 Lesson 6: Use the distributive property as a strategy to multiply and divide using units of 6 and 7. G3 M3 Lesson 8: Understand the function of parentheses and apply to solving problems. G3 M3 Lesson 9: Model the associative property as a strategy to multiply. G3 M3 Lesson 10: Use the distributive property as a strategy to multiply and divide. G3 M3 Lesson 12: Apply the distributive property and the fact $9 = 10 - 1$ as a strategy to multiply. G3 M3 Lesson 20: Use place value strategies and the associative property $n \times (m \times 10) = (n \times m) \times 10$ (where n and m are less than 10) to multiply by multiples of 10. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.OA.6 Understand division as an unknown-factor problem.	G3 M1 Lesson 5: Understand the meaning of the unknown as the number of groups in division. G3 M1 Lesson 6: Interpret the unknown in division using the array model. G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M3 Lesson 4: Count by units of 6 to multiply and divide using number bonds to decompose. G3 M3 Lesson 5: Count by units of 7 to multiply and divide using number bonds to decompose.

Operations and Algebraic Thinking

Multiply and divide within 100.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.7a Fluently solve single-digit multiplication and related divisions, using strategies such as the relationship between multiplication and division or properties of operations.	G3 M1 Lesson 14: Skip-count objects in models to build fluency with multiplication facts using units of 4. G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M3 Topic A: The Properties of Multiplication and Division G3 M3 Topic B: Multiplication and Division Using Units of 6 and 7 G3 M3 Lesson 12: Apply the distributive property and the fact $9 = 10 - 1$ as a strategy to multiply. G3 M3 Lesson 13: Identify and use arithmetic patterns to multiply. G3 M3 Lesson 14: Identify and use arithmetic patterns to multiply. G3 M3 Lesson 16: Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division.
NY-3.OA.7b Know from memory all products of two one-digit numbers.	G3 M3 Lesson 17: Identify patterns in multiplication and division facts using the multiplication table. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Operations and Algebraic Thinking

Solve problems involving the four operations, and identify and extend patterns in arithmetic.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.8 Solve two-step word problems posed with whole numbers and having whole-number answers using the four operations.	*This standard is fully addressed by the lessons aligned to its subsections.*

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.OA.8.a Represent these problems using equations or expressions with a letter standing for the unknown quantity.	G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions. G3 M3 Lesson 21: Solve two-step word problems involving multiplying single-digit factors and multiples of 10. G3 M7 Topic A: Solving Word Problems
NY-3.OA.8.b Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions. G3 M7 Topic A: Solving Word Problems
NY-3.OA.9 Identify and extend arithmetic patterns (including patterns in the addition table or multiplication table).	G3 M3 Lesson 1: Study commutativity to find known facts of 6, 7, 8, and 9. G3 M3 Lesson 2: Apply the distributive and commutative properties to relate multiplication facts $5 \times n + n$ to $6 \times n$ and $n \times 6$ where n is the size of the unit. G3 M3 Lesson 13: Identify and use arithmetic patterns to multiply. G3 M3 Lesson 14: Identify and use arithmetic patterns to multiply. G3 M3 Lesson 16: Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division. G3 M3 Lesson 17: Identify patterns in multiplication and division facts using the multiplication table. G3 M3 Lesson 19: Multiply by multiples of 10 using the place value chart. G3 M3 Lesson 20: Use place value strategies and the associative property $n \times (m \times 10) = (n \times m) \times 10$ (where n and m are less than 10) to multiply by multiples of 10.

Number and Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	G3 M2 Topic C: Rounding to the Nearest Ten and Hundred G3 M2 Lesson 17: Estimate sums by rounding and apply to solve measurement word problems. G3 M2 Lesson 20: Estimate differences by rounding and apply to solve measurement word problems. G3 M2 Lesson 21: Estimate sums and differences of measurements by rounding, and then solve mixed word problems. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.NBT.2 Fluently add and subtract within 1,000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	G3 M2 Lesson 4: Solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock. G3 M2 Lesson 5: Solve word problems involving time intervals within 1 hour by adding and subtracting on the number line. G3 M2 Lesson 8: Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions. G3 M2 Lesson 11: Solve mixed word problems involving all four operations with grams, kilograms, liters, and milliliters given in the same units. G3 M2 Topic D: Two- and Three-Digit Measurement Addition Using the Standard Algorithm G3 M2 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 using strategies based on place value and properties of operations.	G3 M3 Topic F: Multiplication of Single-Digit Factors and Multiples of 10
NY-3.NBT.4a Understand that the digits of a four-digit number represent amounts of thousands, hundreds, tens, and ones.	*Supplemental material is necessary to address this standard.*
NY-3.NBT.4b Read and write four-digit numbers using base-ten numerals, number names, and expanded form.	*Supplemental material is necessary to address this standard.*

Number and Operations—Fractions

Develop understanding of fractions as numbers.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.NF.1 Understand a unit fraction, $\frac{1}{b}$, is the quantity formed by 1 part when a whole is partitioned into b equal parts. Understand a fraction $\frac{a}{b}$ as the quantity formed by a parts of size $\frac{1}{b}$.	G3 M5 Topic B: Unit Fractions and their Relation to the Whole G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line.	G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1. G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0. G3 M5 Lesson 30: Partition various wholes precisely into equal parts using a number line method.
NY-3.NF.2.a Represent a fraction $\frac{1}{b}$ on a number line by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $\frac{1}{b}$ and that the endpoint of the part starting at 0 locates the number $\frac{1}{b}$ on the number line.	G3 M5 Lesson 30: Partition various wholes precisely into equal parts using a number line method.
NY-3.NF.2.b Represent a fraction $\frac{a}{b}$ on a number line by marking off a lengths $\frac{1}{b}$ from 0. Recognize that the resulting interval has size $\frac{a}{b}$ and that its endpoint locates the number $\frac{a}{b}$ on the number line.	G3 M5 Lesson 16: Place whole number fractions and fractions between whole numbers on the number line. G3 M5 Lesson 17: Practice placing various fractions on the number line. G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0.
NY-3.NF.3 Explain equivalence of fractions and compare fractions by reasoning about their size.	*This standard is fully addressed by the lessons aligned to its subsections.*

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.NF.3.a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	G3 M5 Topic E: Equivalent Fractions
NY-3.NF.3.b Recognize and generate equivalent fractions. Explain why the fractions are equivalent.	G3 M5 Lesson 21: Recognize and show that equivalent fractions refer to the same point on the number line. G3 M5 Lesson 22: Generate simple equivalent fractions by using visual fraction models and the number line. G3 M5 Lesson 23: Generate simple equivalent fractions by using visual fraction models and the number line. G3 M5 Lesson 24: Express whole numbers as fractions and recognize equivalence with different units. G3 M5 Lesson 27: Explain equivalence by manipulating units and reasoning about their size.
NY-3.NF.3.c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.	G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1. G3 M5 Lesson 16: Place whole number fractions and fractions between whole numbers on the number line. G3 M5 Lesson 17: Practice placing various fractions on the number line. G3 M5 Lesson 21: Recognize and show that equivalent fractions refer to the same point on the number line. G3 M5 Lesson 23: Generate simple equivalent fractions by using visual fraction models and the number line. G3 M5 Lesson 24: Express whole numbers as fractions and recognize equivalence with different units.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.NF.3.c *continued*	G3 M5 Lesson 25: Express whole number fractions on the number line when the unit interval is 1. G3 M5 Lesson 26: Decompose whole number fractions greater than 1 using whole number equivalence with various models. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.
NY-3.NF.3.d Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions.	G3 M5 Lesson 10: Compare unit fractions by reasoning about their size using fraction strips. G3 M5 Lesson 11: Compare unit fractions with different-sized models representing the whole. G3 M5 Lesson 13: Identify a shaded fractional part in different ways depending on the designation of the whole. G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0. G3 M5 Lesson 19: Understand distance and position on the number line as strategies for comparing fractions. G3 M5 Lesson 28: Compare fractions with the same numerator pictorially. G3 M5 Lesson 29: Compare fractions with the same numerator using $<$, $>$, or $=$, and use a model to reason about their size. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.

Measurement and Data

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve one-step word problems involving addition and subtraction of time intervals in minutes.	G3 M2 Topic A: Time Measurement and Problem Solving G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.MD.2a Measure and estimate liquid volumes and masses of objects using grams (g), kilograms (kg), and liters (l).	G3 M2 Lesson 6: Build and decompose a kilogram to reason about the size and weight of 1 kilogram, 100 grams, 10 grams, and 1 gram. G3 M2 Lesson 7: Develop estimation strategies by reasoning about the weight in kilograms of a series of familiar objects to establish mental benchmark measures. G3 M2 Lesson 9: Decompose a liter to reason about the size of 1 liter, 100 milliliters, 10 milliliters, and 1 milliliter. G3 M2 Lesson 10: Estimate and measure liquid volume in liters and milliliters using the vertical number line. G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.MD.2b Add, subtract, multiply, or divide to solve one-step word problems involving masses or liquid volumes that are given in the same units.	G3 M2 Lesson 8: Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions. G3 M2 Lesson 11: Solve mixed word problems involving all four operations with grams, kilograms, liters, and milliliters given in the same units. G3 M2 Lesson 21: Estimate sums and differences of measurements by rounding, and then solve mixed word problems. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Measurement and Data

Represent and interpret data.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in a scaled picture graph or a scaled bar graph.	G3 M6 Topic A: Generate and Analyze Categorical Data G3 M6 Lesson 9: Analyze data to problem solve. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.	G3 M6 Topic B: Generate and Analyze Measurement Data G3 M7 Lesson 19: Use a line plot to record the number of rectangles constructed from a given number of unit squares. G3 M7 Lesson 22: Use a line plot to record the number of rectangles constructed in Lessons 20 and 21. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Measurement and Data

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.	G3 M4 Topic A: Foundations for Understanding Area G3 M4 Lesson 6: Draw rows and columns to determine the area of a rectangle given an incomplete array.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.MD.5.a Recognize a square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.	G3 M4 Lesson 2: Decompose and recompose shapes to compare areas. G3 M4 Lesson 3: Model tiling with centimeter and inch unit squares as a strategy to measure area. G3 M4 Lesson 4: Relate side lengths with the number of tiles on a side. G3 M4 Lesson 5: Form rectangles by tiling with unit squares to make arrays.
NY-3.MD.5.b Recognize a plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.	G3 M4 Topic A: Foundations for Understanding Area G3 M4 Lesson 5: Form rectangles by tiling with unit squares to make arrays.
NY-3.MD.6 Measure areas by counting unit squares.	G3 M4 Lesson 2: Decompose and recompose shapes to compare areas. G3 M4 Lesson 3: Model tiling with centimeter and inch unit squares as a strategy to measure area. G3 M4 Lesson 4: Relate side lengths with the number of tiles on a side. G3 M4 Lesson 5: Form rectangles by tiling with unit squares to make arrays. G3 M4 Lesson 6: Draw rows and columns to determine the area of a rectangle given an incomplete array. G3 M4 Lesson 7: Interpret area models to form rectangular arrays.
NY-3.MD.7 Relate area to the operations of multiplication and addition.	*This standard is fully addressed by the lessons aligned to its subsections.*

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.MD.7.a Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.	G3 M4 Topic B: Concepts of Area Measurement G3 M4 Lesson 9: Analyze different rectangles and reason about their area. G3 M4 Lesson 10: Apply the distributive property as a strategy to find the total area of a large rectangle by adding two products.
NY-3.MD.7.b Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	G3 M4 Lesson 8: Find the area of a rectangle through multiplication of the side lengths. G3 M4 Lesson 11: Demonstrate the possible whole number side lengths of rectangles with areas of 24, 36, 48, or 72 square units using the associative property. G3 M4 Lesson 14: Find areas by decomposing into rectangles or completing composite figures to form rectangles. G3 M4 Lesson 15: Apply knowledge of area to determine areas of rooms in a given floor plan. G3 M4 Lesson 16: Apply knowledge of area to determine areas of rooms in a given floor plan. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.MD.7.c Use tiling to show in a concrete case that the area of a rectangle with whole-number side length a and side length $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.	G3 M4 Lesson 9: Analyze different rectangles and reason about their area. G3 M4 Lesson 10: Apply the distributive property as a strategy to find the total area of a large rectangle by adding two products. G3 M4 Lesson 12: Solve word problems involving area.
NY-3.MD.7.d Recognize area as additive. Find areas of figures composed of non-overlapping rectangles, and apply this technique to solve real world problems.	G3 M4 Topic D: Applications of Area Using Side Lengths of Figures

Measurement and Data

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.MD.8a Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths or finding one unknown side length given the perimeter and other side lengths.	G3 M7 Topic C: Problem Solving with Perimeter G3 M7 Lesson 23: Solve a variety of word problems with perimeter. G3 M7 Lesson 28: Solve a variety of word problems involving area and perimeter using all four operations. G3 M7 Lesson 29: Solve a variety of word problems involving area and perimeter using all four operations. Lesson 30: Share and critique peer strategies for problem solving. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.
NY-3.MD.8b Identify rectangles with the same perimeter and different areas or with the same area and different perimeters.	G3 M7 Topic D: Recording Perimeter and Area Data on Line Plots G3 M7 Lesson 24: Use rectangles to draw a robot with specified perimeter measurements, and reason about the different areas that may be produced. G3 M7 Lesson 25: Use rectangles to draw a robot with specified perimeter measurements, and reason about the different areas that may be produced. G3 M7 Lesson 26: Use rectangles to draw a robot with specified perimeter measurements, and reason about the different areas that may be produced. G3 M7 Lesson 27: Use rectangles to draw a robot with specified perimeter measurements, and reason about the different areas that may be produced. G3 M7 Lesson 34: Create resource booklets to support fluency with Grade 3 skills.

Geometry

Reason with shapes and their attributes.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-3.G.1 Recognize and classify polygons based on the number of sides and vertices (triangles, quadrilaterals, pentagons, and hexagons). Identify shapes that do not belong to one of the given subcategories.	G2 M8 Lesson 1: Describe two-dimensional shapes based on attributes. G2 M8 Lesson 2: Build, identify, and analyze two-dimensional shapes with specified attributes. G2 M8 Lesson 3: Use attributes to draw different polygons including triangles, quadrilaterals, pentagons, and hexagons. G2 M8 Lesson 4: Use attributes to identify and draw different quadrilaterals including rectangles, rhombuses, parallelograms, and trapezoids.
NY-3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	G3 M5 Topic A: Partitioning a Whole into Equal Parts G3 M7 Lesson 31: Explore and create unconventional representations of one-half. G3 M7 Lesson 32: Explore and create unconventional representations of one-half. G3 M7 Lesson 33: Solidify fluency with Grade 3 skills.