## GREAT MINDS

# Grade 4 | New Jersey Student Learning Standards for Mathematics Correlation to Eureka Math®

#### About Eureka Math

EUREKA

MATH

Created by Great Minds<sup>®</sup>, 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



#### 4 | New Jersey Student Learning Standards for Mathematics Correlation to Eureka Math

Aligned Components of Eureka Math
Lessons in every module engage students in mathematical practices. These are designated in the Module Overview and labeled in lessons. For example:
Problem 2: Add to make 10 of a unit and bundling up to 1 million.         T:       What would happen if we combined 2 groups of 5 hundreds? With your partner, draw place value disks to solve. Use the largest unit possible to express your answer.       S:       2 groups of 5 hundreds equals 10 hundreds. → It would make 10 hundreds, which can be bundled to make 1 thousand.       Image: Standard S

## **Operations and Algebraic Thinking**

4.OA.A Use the four operations with whole numbers to solve problems.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.OA.A.1	G4 M1 Lesson 1: Interpret a multiplication equation as a comparison.
Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent	G4 M1 Lesson 2: Recognize a digit represents 10 times the value of what it represents in the place to its right.
	G4 M3 Lesson 2: Solve multiplicative comparison word problems by applying the area and perimeter formulas.
verbal statements of multiplicative comparisons as multiplication equations.	G4 M3 Topic D: Multiplication Word Problems
	G4 M7 Lesson 4: Solve multiplicative comparison word problems using measurement conversion tables.
<b>4.OA.A.2</b> Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.	G4 M3 Lesson 2: Solve multiplicative comparison word problems by applying the area and perimeter formulas.
	G4 M3 Lesson 3: Demonstrate understanding of area and perimeter formulas by solving multi-step real world problems.
	G4 M3 Topic D: Multiplication Word Problems
	G4 M3 Lesson 26: Divide multiples of 10, 100, and 1,000 by single-digit numbers.
	G4 M7 Lesson 4: Solve multiplicative comparison word problems using measurement conversion tables.
	G4 M7 Lesson 5: Share and critique peer strategies.
	G4 M7 Lesson 10: Solve multi-step measurement word problems.
	G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.OA.A.3	G4 M1 Topic D: Multi-Digit Whole Number Addition
Solve multi-step word problems posed	G4 M1 Topic E: Multi-Digit Whole Number Subtraction
with whole numbers and having	G4 M1 Topic F: Addition and Subtraction Word Problems
whole-number answers using the four operations, including problems in which	G4 M3 Topic D: Multiplication Word Problems
remainders must be interpreted. Represent these problems using	G4 M3 Lesson 29: Represent numerically four-digit dividend division with divisors of 2, 3, 4, and 5, decomposing a remainder up to three times.
equations with a letter standing for the unknown quantity. Assess the	G4 M3 Lesson 31: Interpret division word problems as either number of groups unknown or group size unknown.
reasonableness of answers using mental computation and estimation strategies	G4 M7 Lesson 6: Solve problems involving mixed units of capacity.
including rounding.	G4 M7 Lesson 8: Solve problems involving mixed units of weight.
	G4 M7 Lesson 9: Solve problems involving mixed units of time.
	G4 M7 Lesson 10: Solve multi-step measurement word problems.
	G4 M7 Lesson 11: Solve multi-step measurement word problems.
	G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.
	G4 M7 Lesson 15: Create and determine the area of composite figures.

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## **Operations and Algebraic Thinking**

4.OA.B Gain familiarity with factors and multiples.

#### New Jersey Student Learning Standards for Mathematics

Aligned Components of Eureka Math

4.OA.B.4	G4 M3 Topic F: Reasoning with Divisibility
Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.	G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.

#### **Operations and Algebraic Thinking**

#### 4.OA.C Generate and analyze patterns.

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#### Aligned Components of Eureka Math

4.OA.C.5	G4 M1 Lesson 6: Find 1, 10, and 100 thousand more and less than a given number.
Generate a number or shape pattern	G4 M3 Lesson 23: Use division and the associative property to test for factors and observe patterns.
that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.	G4 M3 Lesson 24: Determine if a whole number is a multiple of another number.
	G4 M5 Topic H: Exploring a Fraction Pattern
	G6 M2 Lesson 16: Even and Odd Numbers

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## Number and Operations in Base Ten

4.NBT.A Generalize place value understanding for multi-digit whole numbers.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.NBT.A.1	G4 M1 Lesson 1: Interpret a multiplication equation as a comparison.
Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.	G4 M1 Lesson 2: Recognize a digit represents 10 times the value of what it represents in the place to its right.
	G4 M1 Lesson 3: Name numbers within 1 million by building understanding of the place value chart and placement of commas for naming base thousand units.
	G4 M3 Topic B: Multiplication by 10, 100, and 1,000
4.NBT.A.2	G4 M1 Lesson 2: Recognize a digit represents 10 times the value of what it represents in the place
Read and write multi-digit whole	to its right.
numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	G4 M1 Lesson 3: Name numbers within 1 million by building understanding of the place value chart and placement of commas for naming base thousand units.
	G4 M1 Lesson 4: Read and write multi-digit numbers using base ten numerals, number names, and expanded form.
	G4 M1 Lesson 5: Compare numbers based on meanings of the digits, using >, <, or = to record the comparison.
	G4 M7 Lesson 17: Practice and solidify Grade 4 fluency.
4.NBT.A.3	G4 M1 Topic C: Rounding Multi-Digit Whole Numbers
Use place value understanding to round multi-digit whole numbers to any place.	

## Number and Operations in Base Ten

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

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
<b>4.NBT.B.4</b> With accuracy and efficiency, add and subtract multi-digit whole numbers using the standard algorithm.	<ul> <li>G4 M1 Lesson 11: Use place value understanding to fluently add multi-digit whole numbers using the standard addition algorithm, and apply the algorithm to solve word problems using tape diagrams.</li> <li>G4 M1 Lesson 13: Use place value understanding to decompose to smaller units once using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.</li> <li>G4 M1 Lesson 14: Use place value understanding to decompose to smaller units up to three times using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.</li> <li>G4 M1 Lesson 14: Use place value understanding to decompose to smaller units up to three times using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.</li> <li>G4 M1 Lesson 15: Use place value understanding to fluently decompose to smaller units multiple times in any place using the standard subtraction algorithm, and apply the algorithm, and apply the algorithm to solve word problems using tape diagrams.</li> <li>G4 M7 Lesson 17: Practice and solidify Grade 4 fluency.</li> </ul>
4.NBT.B.5	G4 M3 Topic B: Multiplication by 10, 100, and 1,000
Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	G4 M3 Topic C: Multiplication of up to Four Digits by Single-Digit Numbers G4 M3 Topic D: Multiplication Word Problems G4 M3 Topic H: Multiplication of Two-Digit by Two-Digit Numbers G4 M7 Lesson 17: Practice and solidify Grade 4 fluency.

Standards for Mathematics	Aligned Components of Eureka Math
4.NBT.B.6	G4 M3 Topic E: Division of Tens and Ones with Successive Remainders
Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	G4 M3 Lesson 26: Divide multiples of 10, 100, and 1,000 by single-digit numbers.
	G4 M3 Lesson 27: Represent and solve division problems with up to a three-digit dividend numerically and with place value disks requiring decomposing a remainder in the hundreds place.
	G4 M3 Lesson 28: Represent and solve three-digit dividend division with divisors of 2, 3, 4, and 5 numerically.
	G4 M3 Lesson 29: Represent numerically four-digit dividend division with divisors of 2, 3, 4, and 5, decomposing a remainder up to three times.
	G4 M3 Lesson 30: Solve division problems with a zero in the dividend or with a zero in the quotient.
	G4 M3 Lesson 32: Interpret and find whole number quotients and remainders to solve one-step division word problems with larger divisors of 6, 7, 8, and 9.
	G4 M3 Lesson 33: Explain the connection of the area model of division to the long division algorithm for three- and four-digit dividends.
	G4 M7 Lesson 17: Practice and solidify Grade 4 fluency.

#### New Jersey Student Learning Standards for Mathematics

#### **Number and Operations–Fractions**

4.NF.A Extend understanding of fractions equivalence and ordering.

#### New Jersey Student Learning Standards for Mathematics

#### Aligned Components of Eureka Math

4.NF.A.1	G4 M5 Lesson 5: Decompose unit fractions using area models to show equivalence.
Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{(n \times a)}{(n \times b)}$ by using visual	G4 M5 Lesson 6: Decompose fractions using area models to show equivalence.
	G4 M5 Topic B: Fraction Equivalence Using Multiplication and Division
fraction models, with attention to how the number and size of the parts differ even though the two fractions	G4 M5 Lesson 20: Use visual models to add two fractions with related units using the denominators 2, 3, 4, 5, 6, 8, 10, and 12.
themselves are the same size. Use this principle to recognize and generate	G4 M5 Lesson 21: Use visual models to add two fractions with related units using the denominators 2, 3, 4, 5, 6, 8, 10, and 12.
equivalent fractions.	G4 M6 Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.
	G4 M6 Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.
	G5 M3 Lesson 1: Make equivalent fractions with the number line, the area model, and numbers.
4.NF.A.2	G4 M5 Topic C: Fraction Comparison
Compare two fractions with different	G4 M5 Lesson 26: Compare fractions greater than 1 by reasoning using benchmark fractions.
numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$ . Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.	G4 M5 Lesson 27: Compare fractions greater than 1 by creating common numerators or denominators.

#### **Number and Operations–Fractions**

4.NF.B Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.NF.B.3	G4 M5 Lesson 1: Decompose fractions as a sum of unit fractions using tape diagrams.
Understand a fraction $\frac{a}{b}$ with $a > 1$ as a	G4 M5 Lesson 2: Decompose fractions as a sum of unit fractions using tape diagrams.
sum of fractions $\frac{1}{b}$ .	G4 M5 Lesson 4: Decompose fractions into sums of smaller unit fractions using tape diagrams.
	G4 M5 Lesson 5: Decompose unit fractions using area models to show equivalence.
	G4 M5 Lesson 6: Decompose fractions using area models to show equivalence.
	G4 M5 Topic D: Fraction Addition and Subtraction
	G4 M5 Lesson 22: Add a fraction less than 1 to, or subtract a fraction less than 1 from, a whole number using decomposition and visual models.
	G4 M5 Lesson 24: Decompose and compose fractions greater than $1$ to express them in various forms.
	G4 M5 Topic F: Addition and Subtraction of Fractions by Decomposition
4.NF.B.3.a	G4 M5 Lesson 16: Use visual models to add and subtract two fractions with the same units.
Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	G4 M5 Lesson 17: Use visual models to add and subtract two fractions with the same units, including subtracting from one whole.
	G4 M5 Lesson 18: Add and subtract more than two fractions.
	G4 M5 Lesson 20: Use visual models to add two fractions with related units using the denominators 2, 3, 4, 5, 6, 8, 10, and 12.
	G4 M5 Lesson 21: Use visual models to add two fractions with related units using the denominators 2, 3, 4, 5, 6, 8, 10, and 12.
	G4 M5 Lesson 22: Add a fraction less than 1 to, or subtract a fraction less than 1 from, a whole number using decomposition and visual models.

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Standards for Mathematics	Aligned Components of Eureka Math
4.NF.B.3.b	G4 M5 Lesson 1: Decompose fractions as a sum of unit fractions using tape diagrams.
Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model.	<ul> <li>G4 M5 Lesson 2: Decompose fractions as a sum of unit fractions using tape diagrams.</li> <li>G4 M5 Lesson 4: Decompose fractions into sums of smaller unit fractions using tape diagrams.</li> <li>G4 M5 Lesson 5: Decompose unit fractions using area models to show equivalence.</li> <li>G4 M5 Lesson 6: Decompose fractions using area models to show equivalence.</li> </ul>
<b>4.NF.B.3.c</b> Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.	G4 M5 Lesson 24: Decompose and compose fractions greater than 1 to express them in various forms. G4 M5 Topic F: Addition and Subtraction of Fractions by Decomposition
<b>4.NF.B.3.d</b> Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.	G4 M5 Lesson 19: Solve word problems involving addition and subtraction of fractions. G4 M5 Lesson 28: Solve word problems with line plots.

Standards for Mathematics	Aligned Components of Eureka Math
4.NF.B.4	G4 M5 Lesson 3: Decompose non-unit fractions and represent them as a whole number times
Apply and extend previous	a unit fraction using tape diagrams.
understandings of multiplication	G4 M5 Lesson 4: Decompose fractions into sums of smaller unit fractions using tape diagrams.
to multiply a fraction by a whole number.	G4 M5 Lesson 5: Decompose unit fractions using area models to show equivalence.
	G4 M5 Lesson 6: Decompose fractions using area models to show equivalence.
	G4 M5 Lesson 23: Add and multiply unit fractions to build fractions greater than 1 using visual models.
	G4 M5 Lesson 25: Decompose and compose fractions greater than 1 to express them in various forms.
	G4 M5 Topic G: Repeated Addition of Fractions as Multiplication
4.NF.B.4.a	G4 M5 Lesson 3: Decompose non-unit fractions and represent them as a whole number times
Understand a fraction $\frac{a}{b}$ as a	a unit fraction using tape diagrams.
multiple of $\frac{1}{b}$ .	G4 M5 Lesson 4: Decompose fractions into sums of smaller unit fractions using tape diagrams.
	G4 M5 Lesson 5: Decompose unit fractions using area models to show equivalence.
	G4 M5 Lesson 6: Decompose fractions using area models to show equivalence.
	G4 M5 Lesson 35: Represent the multiplication of <i>n</i> times $\frac{a}{b}$ as $\frac{(n \times a)}{b}$ using the associative property and visual models.
	G5 M3 Lesson 2: Make equivalent fractions with sums of fractions with like denominators.

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Standards for Mathematics	Aligned Components of Eureka Math
<b>4.NF.B.4.b</b> Understand a multiple of $\frac{a}{b}$ as a multiple	G4 M5 Lesson 23: Add and multiply unit fractions to build fractions greater than 1 using visual models.
of $\frac{1}{b}$ , and use this understanding to multiply a fraction by a whole number.	G4 M5 Lesson 25: Decompose and compose fractions greater than 1 to express them in various forms.
	G4 M5 Lesson 35: Represent the multiplication of $n$ times $\frac{a}{b}$ as $\frac{(n \times a)}{b}$ using the associative property and visual models.
	G4 M5 Lesson 36: Represent the multiplication of <i>n</i> times $\frac{a}{b}$ as $\frac{(n \times a)}{b}$ using the associative property and visual models.
	G4 M5 Lesson 37: Find the product of a whole number and a mixed number using the distributive property.
	G4 M5 Lesson 38: Find the product of a whole number and a mixed number using the distributive property.
	G5 M3 Lesson 2: Make equivalent fractions with sums of fractions with like denominators.
4.NF.B.4.c	G4 M5 Topic G: Repeated Addition of Fractions as Multiplication
Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.	

#### New Jersey Student Learning Standards for Mathematics

## Number and Operations-Fractions

4.NF.C Understand decimal notation for fractions and compare decimal fractions.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.NF.C.5	G4 M6 Lesson 4: Use meters to model the decomposition of one whole into hundredths. Represent and count hundredths.
Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique	G4 M6 Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.
to add two fractions with respective denominators 10 and 100.	G4 M6 Lesson 8: Use understanding of fraction equivalence to investigate decimal numbers on the place value chart expressed in different units.
	G4 M6 Topic D: Addition with Tenths and Hundredths
	G4 M6 Lesson 15: Express money amounts given in various forms as decimal numbers.
4.NF.C.6	G4 M6 Topic A: Exploration of Tenths
Use decimal notation for fractions with denominators 10 or 100.	G4 M6 Lesson 4: Use meters to model the decomposition of one whole into hundredths. Represent and count hundredths.
	G4 M6 Lesson 5: Model the equivalence of tenths and hundredths using the area model and place value disks.
	G4 M6 Lesson 6: Use the area model and number line to represent mixed numbers with units of ones, tenths, and hundredths in fraction and decimal forms.
	G4 M6 Lesson 7: Model mixed numbers with units of hundreds, tens, ones, tenths, and hundredths in expanded form and on the place value chart.
	G4 M6 Lesson 12: Apply understanding of fraction equivalence to add tenths and hundredths.
	G4 M6 Lesson 13: Add decimal numbers by converting to fraction form.
	G4 M6 Lesson 15: Express money amounts given in various forms as decimal numbers.
	G4 M7 Lesson 17: Practice and solidify Grade 4 fluency.

Standards for Mathematics	Aligned Components of Eureka Math
4.NF.C.7	G4 M6 Topic C: Decimal Comparison
Compare two decimals to hundredths	
by reasoning about their size. Recognize	
that comparisons are valid only when the	
two decimals refer to the same whole.	
Record the results of comparisons with	
the symbols >, =, or <, and justify the	
conclusions, e.g., by using a visual model.	

#### Measurement

4.M.A Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

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#### Aligned Components of Eureka Math

4.M.A.1	G4 M2 Topic A: Metric Unit Conversions
Know relative sizes of measurement units within one system of units including	G4 M2 Lesson 4: Know and relate metric units to place value units in order to express measurements in different units.
km, m, cm, mm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system	G4 M7 Lesson 1: Create conversion tables for length, weight, and capacity units using measurement tools, and use the tables to solve problems.
of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a	G4 M7 Lesson 2: Create conversion tables for length, weight, and capacity units using measurement tools, and use the tables to solve problems.
two-column table.	G4 M7 Lesson 3: Create conversion tables for units of time, and use the tables to solve problems.
	G4 M7 Lesson 5: Share and critique peer strategies.
	G4 M7 Lesson 6: Solve problems involving mixed units of capacity.
	G4 M7 Lesson 7: Solve problems involving mixed units of length.
	G4 M7 Lesson 8: Solve problems involving mixed units of weight.
	G4 M7 Lesson 9: Solve problems involving mixed units of time.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.M.A.1 continued	G4 M7 Lesson 12: Use measurement tools to convert mixed number measurements to smaller units. G4 M7 Lesson 13: Use measurement tools to convert mixed number measurements to smaller units. G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.
4.M.A.2	G4 M2 Topic A: Metric Unit Conversions
Use the four operations to solve word problems involving distances,	G4 M2 Lesson 5: Use addition and subtraction to solve multi-step word problems involving length, mass, and capacity.
intervals of time, liquid volumes, masses of objects, and money, including	G4 M5 Lesson 40: Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots.
problems involving simple fractions or decimals, and problems that require	G4 M6 Lesson 14: Solve word problems involving the addition of measurements in decimal form.
expressing measurements given in a	G4 M6 Lesson 16: Solve word problems involving money.
larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	G4 M7 Lesson 4: Solve multiplicative comparison word problems using measurement conversion tables.
	G4 M7 Topic B: Problem Solving with Measurement
	G4 M7 Lesson 14: Solve multi-step word problems involving converting mixed number measurements to a single unit.
4.M.A.3	G4 M3 Topic A: Multiplicative Comparison Word Problems
Apply the area and perimeter formulas	G4 M7 Lesson 15: Create and determine the area of composite figures.
for rectangles in real world and mathematical problems.	G4 M7 Lesson 16: Create and determine the area of composite figures.

#### Measurement

4.M.B Geometric measurement: understand concepts of angle and measure angles.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
<b>4.M.B.4</b> Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:	<ul> <li>G4 M4 Lesson 5: Use a circular protractor to understand a 1-degree angle as <sup>1</sup>/<sub>360</sub> of a turn. Explore benchmark angles using the protractor.</li> <li>G4 M4 Lesson 8: Identify and measure angles as turns and recognize them in various contexts.</li> <li>G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.</li> </ul>
<b>4.M.B.4.a</b> An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ th of a circle is called a "one-degree angle," and can be used to measure angles.	G4 M4 Lesson 6: Use varied protractors to distinguish angle measure from length measurement.
<b>4.M.B.4.b</b> An angle that turns through <i>n</i> one-degree angles is said to have an angle measure of <i>n</i> degrees.	G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.
<b>4.M.B.5</b> Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	G4 M4 Topic B: Angle Measurement G4 M7 Lesson 16: Create and determine the area of composite figures. G4 M7 Lesson 17: Practice and solidify Grade 4 fluency. G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.

Standards for Mathematics	Aligned Components of Eureka Math
4.M.B.6	G4 M4 Topic C: Problem Solving with the Addition of Angle Measures
Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.	G4 M7 Lesson 17: Practice and solidify Grade 4 fluency.

#### New Jersey Student Learning Standards for Mathematics

#### Data Literacy

4.DL.A Organize data and understand data visualizations.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.DL.A.1	Supplemental material is necessary to address this standard.
Create data-based questions, generate ideas based on the questions, and then refine the questions.	
4.DL.A.2	Supplemental material is necessary to address this standard.
Develop strategies to collect various types of data and organize data digitally.	

#### **Standards for Mathematics** Aligned Components of Eureka Math Supplemental material is necessary to address this standard. 4.DL.A.3 Understand that subsets of data can be selected and analyzed for a particular purpose. 4.DL.A.4 Supplemental material is necessary to address this standard. Analyze visualizations of a single data set, share explanations and draw conclusions that the data supports.

# **New Jersey Student Learning**

#### **Data Literacy**

4.DL.B Represent and interpret measurement data.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.DL.B.5	G4 M5 Lesson 28: Solve word problems with line plots.
Make a line plot to display a data set of measurements in fractions of a unit $(\frac{1}{2}, \frac{1}{4}, \frac{1}{8})$ . Solve problems involving addition and subtraction of fractions by using information presented in line plots.	G4 M5 Lesson 40: Solve word problems involving the multiplication of a whole number and a fraction including those involving line plots.

#### Geometry

4.G.A Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

New Jersey Student Learning Standards for Mathematics	Aligned Components of Eureka Math
4.G.A.1	G4 M4 Topic A: Lines and Angles
Draw points, lines, line segments, rays,	G4 M4 Lesson 14: Define and construct triangles from given criteria. Explore symmetry in triangles.
angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	G4 M4 Lesson 15: Classify quadrilaterals based on parallel and perpendicular lines and the presence or absence of angles of a specified size.
	G4 M4 Lesson 16: Reason about attributes to construct quadrilaterals on square or triangular grid paper.
	G4 M7 Lesson 16: Create and determine the area of composite figures.
	G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.
	G5 M6 Lesson 13: Construct parallel line segments on a rectangular grid.
	G5 M6 Lesson 15: Construct perpendicular line segments on a rectangular grid.
4.G.A.2	G4 M4 Lesson 13: Analyze and classify triangles based on side length, angle measure, or both.
Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category and identify right triangles.	G4 M4 Lesson 14: Define and construct triangles from given criteria. Explore symmetry in triangles.
	G4 M4 Lesson 15: Classify quadrilaterals based on parallel and perpendicular lines and the presence or absence of angles of a specified size.
	G4 M4 Lesson 16: Reason about attributes to construct quadrilaterals on square or triangular grid paper.
	G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.

Standards for Mathematics	Aligned Components of Eureka Math
4.G.A.3	G4 M4 Lesson 12: Recognize lines of symmetry for given two-dimensional figures. Identify
Recognize a line of symmetry for	line-symmetric figures, and draw lines of symmetry.
a two-dimensional figure as a line across	G4 M4 Lesson 13: Analyze and classify triangles based on side length, angle measure, or both.
the figure such that the figure can be folded along the line into matching	G4 M4 Lesson 14: Define and construct triangles from given criteria. Explore symmetry in triangles.
parts. Identify line-symmetric figures and	G4 M7 Lesson 18: Practice and solidify Grade 4 vocabulary.
draw lines of symmetry.	

# New Jersey Student Learning