Finish Line New York Math, Third Edition
Grade 4 Crosswalk

Unit/ Lesson	Title	CCLS	Next Generation Standard
UNIT 1	**BIG IDEAS FROM GRADE 3**		
Lesson 1	Adding and Subtracting	3.NBT.2	NY-3.NBT.2
Lesson 2	Multiplying and Dividing	3.OA.7	NY-3.OA.7
Lesson 3	Understanding Fractions	3.NF.1; 2.a, b; 3.a–d	NY-3.NF.1; 2.a, b; 3.a–d
Lesson 4	Understanding Area	3.MD.5.a, b; 6	NY-3.MD.5.a, b; 6
UNIT 2	**OPERATIONS AND ALGEBRAIC THINKING**		
Lesson 5	Understanding Multiplication as Comparison	4.OA.1	NY-4.OA.1
Lesson 6	Multiplication and Division Word Problems	4.OA.2	NY-4.OA.2
Lesson 7	Representing Multistep Word Problems	4.OA.3	NY-4.OA.3
Lesson 8	Solving Multistep Word Problems	4.OA.3	NY-4.OA.3
Lesson 9	Factors and Multiples	4.OA.4	NY-4.OA.4
Lesson 10	Prime and Composite Numbers	4.OA.4	NY-4.OA.4
Lesson 11	Number Patterns	4.OA.5	NY-4.OA.5
Lesson 12	Shape Patterns	4.OA.5	NY-4.OA.5
UNIT 3	**NUMBERS AND OPERATIONS IN BASE TEN**		
Lesson 13	Whole-Number Place Value	4.NBT.1	NY-4.NBT.1
Lesson 14	Reading and Writing Whole Numbers	4.NBT.2	NY-4.NBT.2
Lesson 15	Comparing Whole Numbers	4.NBT.2	NY-4.NBT.2
Lesson 16	Rounding Whole Numbers	4.NBT.3	NY-4.NBT.3
Lesson 17	Adding and Subtracting Whole Numbers	4.NBT.4	NY-4.NBT.4
Lesson 18	Multiplying Whole Numbers	4.NBT.5	NY-4.NBT.5
Lesson 19	Dividing Whole Numbers	4.NBT.6	NY-4.NBT.6

Unit/ Lesson	Title	CCLS	Next Generation Standard
UNIT 4	**NUMBERS AND OPERATIONS—FRACTIONS**		
Lesson 20	Equivalent Fractions	4.NF.1	NY-4.NF.1
Lesson 21	Comparing Fractions	4.NF.2	NY-4.NF.2
Lesson 22	Adding and Subtracting Fractions	4.NF.3.a, b	NY-4.NF.3.a, b
Lesson 23	Adding and Subtracting Mixed Numbers	4.NF.3.c	NY-4.NF.3.c
Lesson 24	Word Problems with Addition and Subtraction of Fractions	4.NF.3.d	NY-4.NF.3.d
Lesson 25	Multiplying Fractions and Whole Numbers	4.NF.4.a, b	NY-4.NF.4.a, b
Lesson 26	Word Problems with Multiplication of Fractions and Whole Numbers	4.NF.4.c	NY-4.NF.4.c
Lesson 27	Decimals and Fractions	4.NF.5	NY-4.NF.5
Lesson 28	Decimal Notation	4.NF.6	NY-4.NF.6
Lesson 29	Comparing Decimals	4.NF.7	NY-4.NF.7
UNIT 5	**MEASUREMENT AND DATA**		
Lesson 30	Converting Customary Units of Measurement	4.MD.1	NY-4.MD.1
Lesson 31	Converting Metric Units of Measurement	4.MD.1	NY-4.MD.1
Lesson 32	Word Problems with Measurements	4.MD.2	NY-4.MD.2
Lesson 33	Area of Rectangles	4.MD.3	NY-4.MD.3
Lesson 34	Perimeter of Rectangles	4.MD.3	NY-4.MD.3
Lesson 35	Measurement Data on Line Plots	4.MD.4	NY-4.MD.4
Lesson 36	Understanding Angles	4.MD.5.a, b; 4.G.1	NY-4.MD.5.a, b; NY-4.G.1
Lesson 37	Measuring and Drawing Angles	4.MD.6	NY-4.MD.6
Lesson 38	Solving Angle Problems	4.MD.7	NY-4.MD.7
UNIT 6	**GEOMETRY**		
Lesson 39	Points, Lines, Line Segments, and Rays	4.G.1	NY-4.G.1
Lesson 40	Parallel and Perpendicular Lines	4.G.1	NY-4.G.1
Lesson 41	Classifying Shapes	4.G.2	NY-4.G.2
Lesson 42	Lines of Symmetry	4.G.3	NY-4.G.3

OPERATIONS AND ALGEBRAIC THINKING		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Use the four operations with whole numbers to solve problems.	4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	NY-4.OA.1 Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. e.g., • Interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. • Represent "Four times as many as eight is thirty-two" as an equation, 4 × 8 = 32.
	4.OA.2 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.	NY-4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. Use drawings and equations with a symbol for the unknown number to represent the problem.
	4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	NY-4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. NY-4.OA.3.a Represent these problems **using equations or expressions** with a letter standing for the unknown quantity. NY-4.OA.3.b Assess the reasonableness of answers using mental computation and estimation strategies including rounding. **Note: Multistep problems need not be represented by a single expression or equation.**
Gain familiarity with factors and multiples.	4.OA.4 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.	NY-4.OA.4 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.
Generate and analyze patterns.	4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*	NY-4.OA.5 Generate a number or shape pattern that follows a given rule. **Identify and informally explain apparent features** of the pattern that were not explicit in the rule itself. e.g., Given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

NUMBER AND OPERATIONS IN BASE TEN		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Generalize place value understanding for multi-digit whole numbers.	4.NBT.1 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. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.* Note: Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.	NY-4.NBT.1 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. e.g., Recognize that **70 × 10 = 700 (and therefore, 700 ÷ 10 = 70)** by applying concepts of place value, **multiplication,** and division. Note: Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.
	4.NBT.2 Read and write multi-digit whole 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. Note: Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.	NY-4.NBT.2.a Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. e.g., 50,327 = 50,000 + 300 + 20 + 7 NY-4.NBT.2.b Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. Note: Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.
	4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place. Note: Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.	NY-4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place. Note: Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.

NUMBER AND OPERATIONS IN BASE TEN		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.4 Fluently add and subtract multi-digit whole numbers using ~~the~~ standard algorithm. Note: Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.	NY-4.NBT.4 Fluently add and subtract multi-digit whole numbers using **a standard algorithm.** Note: Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.
	4.NBT.5 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. Note: Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.	NY-4.NBT.5 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. **Note on and/or: Students should be taught to use equations, rectangular arrays, and area models; however, when illustrating and explaining any calculation, students can choose any strategy.** Note: Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.
	4.NBT.6 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. Note: Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.	NY-4.NBT.6 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. **Note on and/or: Students should be taught to use strategies based on place value, the properties of operations, and the relationship between multiplication and division; however, when solving any problem, students can choose any strategy. Students should be taught to use equations, rectangular arrays, and area models; however, when illustrating and explaining any calculation, students can choose any strategy.** Note: Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.

NUMBER AND OPERATIONS—FRACTIONS		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Extend understanding of fraction equivalence and ordering.	**4.NF.1** Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	**NY-4.NF.1** Explain why a fraction $\frac{a}{b}$ is equivalent to a fraction $\frac{a \times n}{b \times n}$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
	4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 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. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	**NY-4.NF.2** Compare two fractions with different numerators and different denominators. Recognize that comparisons are valid only when the two fractions refer to the same whole. e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Record the results of comparisons with symbols >, =, or <, and justify the conclusions. e.g., using a visual fraction model. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

NUMBER AND OPERATIONS—FRACTIONS		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	4.NF.3 Understand a fraction *a*/*b* with *a* > 1 as a sum of fractions 1/*b*. a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. b. 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. *Examples: 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.* c. 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. d. 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. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	NY-4.NF.3 Understand a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$. **Note: $\frac{1}{b}$ refers to the unit fraction for $\frac{a}{b}$.** NY-4.NF.3.a Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. NY-4.NF.3.b 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 such as, but not limited to: • $\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$ • $\frac{3}{8} = \frac{1}{8} + \frac{2}{8}$ • $2\frac{1}{8} = 1 + 1 + \frac{1}{8} = \frac{8}{8} + \frac{8}{8} + \frac{1}{8}$ NY-4.NF.3.c Add and subtract mixed numbers with like denominators. e.g., replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. NY-4.NF.3.d Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators. e.g., using visual fraction models and equations to represent the problem. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

NUMBER AND OPERATIONS—FRACTIONS		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction *a*/*b* as a multiple of 1/*b*. *For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).* b. Understand a multiple of *a*/*b* as a multiple of 1/*b*, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)* c. 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. *For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?* Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	NY-4.NF.4 Apply and extend previous understandings of multiplication to multiply a **whole number by a fraction.** **Note: This standard refers to *n* groups of a fraction (where *n* is a whole number), e.g., 4 groups of $\frac{1}{3}$; which lends itself to being thought about as repeated addition. In grade 5 (NY-5.NF.4) students will be multiplying a fraction by a whole number, e.g., $\frac{1}{3}$ of 4.** NY-4.NF.4.a Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$. e.g., Use a visual fraction model to represent $\frac{5}{4}$ as the product $5 \times \frac{1}{4}$, recording the conclusion by the equation $\frac{5}{4} = 5 \times \frac{1}{4}$. NY-4.NF.4.b Understand a multiple of $\frac{a}{b}$ as a multiple of $\frac{1}{b}$, and use this understanding to **multiply a whole number by a fraction.** e.g., Use a visual fraction model to express $3 \times \frac{2}{5}$ as $6 \times \frac{1}{5}$, recognizing this product as $\frac{6}{5}$, in general, $n \times \frac{a}{b} = \frac{(n \times a)}{b}$. NY-4.NF.4.c Solve word problems involving **multiplication of a whole number by a fraction.** e.g., by using visual fraction models and equations to represent the problem. e.g., if each person at a party will eat $\frac{3}{8}$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie? Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

NUMBER AND OPERATIONS—FRACTIONS		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Understand decimal notation for fractions, and compare decimal fractions.	**4.NF.5** Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.* Students who can generate equivalent fractions develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	**NY-4.NF.5** Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. e.g., express $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$. Notes: • Students who can generate equivalent fractions develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade. • Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
	4.NF.6 Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.* Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	**NY-4.NF.6** Use decimal notation for fractions with denominators 10 or 100. e.g., • Rewrite 0.62 as $\frac{62}{100}$ or $\frac{62}{100}$ as 0.62. • Describe a length as 0.62 meters. • Locate 0.62 on a number line. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.
	4.NF.7 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. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.	**NY-4.NF.7** 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 conclusion. e.g., by using a visual model. Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.

MEASUREMENT AND DATA		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	4.MD.1 Know relative sizes of measurement units ~~within one system of units including~~ km, m, cm; ~~kg, g; lb, oz; l, ml~~; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches ~~listing the number pairs (1, 12), (2, 24), (3, 36), …~~*	NY-4.MD.1 **Know relative sizes of measurement units: ft, in.; km, m, cm** **e.g.,** **An inch is about the distance from the tip of your thumb to your first knuckle.** **A foot is the length of two dollar bills.** **A meter is about the height of a kitchen counter.** **A kilometer is $2\frac{1}{2}$ laps around most tracks.** **Know the conversion factor and use it to convert** measurements in a larger unit in terms of a smaller unit: **ft, in.; km, m, cm; hr, min, sec.** e.g., know that 1 ft is 12 times as long as 1 in., and express the length of a 4 ft snake as 48 in. **Given the conversion factor, convert all other measurements within a single system of measurement from a larger unit to a smaller unit.** **e.g., Given the conversion factors, convert kilograms to grams, pounds to ounces, or liters to milliliters.** Record measurement equivalents in a two-column table. e.g., Generate a conversion table for feet and inches.
	4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving ~~simple~~ fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line ~~diagrams~~ that feature a measurement scale.	NY-4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money. NY-4.MD.2.a Solve problems involving **fractions** or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. NY-4.MD.2.b Represent measurement quantities using diagrams that feature a measurement scale, such as **number lines.** **Note: Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100.**
	4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*	NY-4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. e.g., Find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

MEASUREMENT AND DATA		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Represent and interpret data.	4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, ~~from a line plot~~ find and interpret the difference in length between the longest and shortest specimens in an insect collection.*	NY-4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit $\left(\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right)$. Solve problems involving addition and subtraction of fractions by using information presented in line plots. e.g., **Given measurement data on a line plot,** find and interpret the difference in length between the longest and shortest specimens in an insect collection.
Geometric measurement: understand concepts of angle and measure angles.	4.MD.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. 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 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.	NY-4.MD.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. NY-4.MD.5.a **Recognize** 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 $\frac{1}{360}$ of a circle is called a "one-degree angle," and can be used to measure angles. NY-4.MD.5.b **Recognize** an angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.
	4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	NY-4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
	4.MD.7 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.	NY-4.MD.7 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., using an equation with a symbol for the unknown angle measure.

GEOMETRY		
Cluster	Common Core Learning Standard	Next Generation Learning Standard
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	NY-4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
	4.G.2 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.	NY-4.G.2.a **Identify and name triangles based on angle size (right, obtuse, acute).** NY-4.G.2.b **Identify and name all quadrilaterals with 2 pairs of parallel sides as parallelograms.** NY-4.G.2.c **Identify and name all quadrilaterals with four right angles as rectangles.**
	4.G.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	NY-4.G.3 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.