

4th Grade

Mathematics Alignment—Common Core State Standards and CT Frameworks

NOTE: CCSS standards shown in blue do not equivalent CT standards.

CCSS Standards	CT Framework Grade Level Expectations
4.OA: Operations and Algebraic Thinking	
<i>Use the four operations with whole numbers to solve problems.</i>	
4.OA.1: 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 times 7 many as 5). Represent verbal statements of multiplicative comparisons as multiplication equations.	--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 times 7 many as 5). Represent verbal statements of multiplicative comparisons as multiplication equations.
	CT.4.1.3.5: Solve problems and demonstrate an understanding of equivalence in mathematical situations that reflect the commutative and associative properties of addition and multiplication of whole numbers and the distributive property.
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).	--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).
	CT.3.2.2.11: Write multiplication and division story problems to match a given multiplication or division number sentence and vice versa; solve the problems and justify the solution.
	CT.4.2.2.18: Write multiplication and division story problems involving basic facts and two- and three-digit by one-digit numbers to match a given number sentence and vice versa; solve the problems using strategies that include models and arrays and justify the solutions.
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.	CT.4.1.2.3: Describe mathematical relationships and situations involving ratios and computation of whole numbers in all four operations using symbols, number sentences, and equations.
	CT.4.1.3.4: Represent possible values by using symbols (e.g., variables) to represent quantities in expression and number sentences. Use number sentences (equations) to model and solve word problems.
	CT.4.2.1.3: Round whole numbers up to 100,000 using number patterns, number lines, diagrams, and place value models.

	<p>CT.4.2.2.15: Solve contextual problems involving addition and subtraction of whole numbers using a variety of methods, including writing appropriate number sentences (equations) and explaining the strategies used.</p>
	<p>CT.4.2.2.19: Determine and explain in writing when an estimate is appropriate and whether a particular estimation strategy is reasonable or will result in an overestimate or underestimate involving computation with three- and four-digit numbers and money amounts up to \$1,000.</p>
	<p>CT.4.2.2.24: Write and solve multistep contextual problems, including problems with extraneous information and explain orally and in writing how the answers were determined.</p>
	<p>CT.5.2.2.14: Write and solve multistep problems in context involving addition, subtraction, multiplication, and division with whole numbers, fractions, decimals, money and simple percentages.</p>
<p><i>Gain familiarity with factors and multiples</i></p>	
<p>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.</p>	<p>CT.4.2.1.6: Identify and define prime and composite numbers through the use of models including rectangular arrays, place value models and pictures.</p>
	<p>CT.4.2.2.17: Recall the multiplication and division facts 1 through 10.</p>
	<p>CT.5.2.1.5: Classify numbers as prime, composite or perfect squares and identify factor pairs using rectangular arrays.</p>
<p><i>Generate and analyze patterns.</i></p>	
<p>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.</p>	<p>CT.4.1.1.1: Extend and compare numerical and geometric sequences and classify patterns as growing or repeating (e.g., 2, 4, 8, __, __ grows while geometric patterns repeat).</p>
	<p>CT.4.1.1.2: Develop and text generalizations based on observable patterns and relationships and describe the rules for number patterns using equations (e.g., in this sequence 1, 6, 16, 36..., to get the next number, the current number can be doubled and four added to the product).</p>
	<p>CT.4.4.2.3: Discuss, made predictions and write about patterns and trends in categorical and numerical data that have been represented in a variety of ways.</p>

	CT.5.1.1.1: Represent, extend and compare geometric and numeric patterns using words, tables, graphs and equations.
4.NBT: Number and Base Ten Operations	
<i>Generalize place value understanding for multi-digit whole numbers.</i>	
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.	--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.
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. <i>Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.</i>	--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.
	CT.4.2.1.1: Locate, label, compare and order numbers up to one hundred thousand using place value models, number lines and diagrams.
	CT.5.2.1.2: Represent whole numbers up to 1,000,000 in expanded and regrouped forms and use the forms to support computation.
4.NBT.3: Use place value understanding to round multi-digit whole numbers to any place. <i>Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.</i>	CT.5.2.1.1: Compare, order and round whole numbers to one million using number patterns, number lines and diagrams.
<i>Use place value understanding and properties of operations to perform multi-digit arithmetic.</i>	
4.NBT.4: Fluently add and subtract multi-digit whole numbers using the standard algorithm. [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000. A range of algorithms may be used]	--Fluently add and subtract multi-digit whole numbers using the standard algorithm.
	CT.4.2.2.14: Develop and use a variety of computation strategies including place value concepts, number lines and the commutative and associative properties to add and subtract three- and four-digit numbers and money amounts up to \$1,000.00.
	CT.4.2.2.15: Solve contextual problems involving addition and subtraction of whole numbers using a variety of methods, including writing appropriate number sentences (equations) and explaining the strategies used.
	CT.5.2.2.12: Develop and use strategies involving place value relationships, inverse operations and algebraic properties (commutative, associative and distributive) to simplify addition, subtraction and multiplication problems with three-, four- and five-digit numbers and money amounts and division by one-digit factors.

<p>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. [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000. A range of algorithms may be used.]</p>	<p>--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.</p> <p>CT.4.2.2.18: Write multiplication and division story problems involving basic facts and two- and three-digit by one-digit numbers to match a given number sentence and vice versa; solve the problems using strategies that include models and arrays and justify the solutions.</p> <p>CT.5.2.2.12: Develop and use strategies involving place value relationships, inverse operations, and algebraic properties (commutative, associative and distributive) to simplify addition, subtraction and multiplication problems with three-, four- and five-digit numbers and money amounts and division by one-digit factors.</p>
<p>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 relationships between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. [Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000. A range of algorithms may be used.]</p>	<p>--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 relationships between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>CT.4.2.2.18: Write multiplication and division story problems involving basic facts and two- and three-digit by one-digit numbers to match a given number sentence and vice versa; solve the problems using strategies that include models and arrays and justify the solutions.</p> <p>CT.5.2.2.12: Develop and use strategies involving place value relationships, inverse operations, and algebraic properties (commutative, associative and distributive) to simplify addition, subtraction and multiplication problems with three-, four- and five-digit numbers and money amounts and division by one-digit factors.</p>

4.NF: Number and Operations - Fractions	
<i>Extend understanding of fraction equivalence and ordering.</i>	
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.	--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.
	CT.3.2.1.7: Determine equivalence of and compare and order fractions through the construction and use of models, pictures and number lines with like and unlike denominators of two, three, four, five, six and eight, including identifying a whole object or a whole set of objects as a fraction with the same numerator and denominator.
	CT.4.2.1.7: Construct and use number lines, pictures and models including rulers to determine and identify equivalent ratios and fractions.
	CT.5.2.1.6: Represent equivalent fractions, decimals, ratios and percents using models, pictures, number patterns and common factors.
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 $\frac{1}{2}$). 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).	--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 $\frac{1}{2}$). 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).
	CT.3.1.3.5: Demonstrate understanding of equivalence as a balanced relationship of quantities by using the equals sign to relate two quantities that are equivalent and the inequality symbols, $<$ and $>$, to relate two quantities that are not equivalent.
	CT.3.2.1.7: Determine equivalence of and compare and order fractions through the construction o and use of models, pictures and number lines with like and unlike denominators of two, three, four, five, six and eight, including identifying a whole object or a whole set of objects as a fraction with the same numerator and denominator.
	CT.4.2.1.9: Construct and use models, pictures and number lines including rulers to compare and order fractional parts of a whole and mixed numbers with unlike and like denominators of 2, 3, 4, 5, 6 and 8 and 10.

	CT.5.2.1.7: Choose and use benchmarks to approximate locations of fractions, mixed numbers and decimals on number lines and coordinate grids.
	CT.6.2.1.2: Compare and order whole numbers, fractions, decimals and positive and negative integers in context using number lines and scales.
<i>Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.</i>	
<p>4.NF.3: Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p>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: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.</p> <p>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 relationships between addition and subtraction).</p> <p>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). [Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, 100.]</p>	<p>--Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p>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: $3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2\ 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.</p> <p>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 relationships between addition and subtraction).</p> <p>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).</p> <p>CT.5.2.2.16: Add and subtract fractions, decimals and mixed numbers using a variety of strategies (e.g., models, mental math, equivalence and substitution).</p> <p>CT.6.2.2.12: Add, subtract, multiply and divide by fractions and decimals in context.</p>
<p>4.NF.4: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>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 $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</p> <p>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 $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$ (in general, $n \times (a/b) = (n \times a)/b$).</p>	<p>--Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.</p> <p>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 $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.</p> <p>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 $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$ (in general, $n \times (a/b) = (n \times a)/b$).</p>

<p>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 $\frac{3}{8}$ 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?</p> <p>[Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, 100.]</p>	<p>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 $\frac{3}{8}$ 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?</p> <p>[Grade 4 expectations in this domain are limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10, 12, 100.]</p> <p>CT.5.2.2.15: Find fractional parts of a set by using estimation, counting, number patterns, equivalent ratios, division and grouping of objects.</p> <p>CT.5.2.2.17: Construct and use models and pictorial representations to multiply common fractions and mixed numbers by whole numbers.</p> <p>CT.6.2.2.12: Add, subtract, multiply and divide by fractions and decimals in context.</p> <p>CT.6.2.2.13: Describe situations in writing that connect multiplying fractions to determining the fractional part of a set.</p>
<p><i>Understand decimal notation for fractions, and compare decimal fractions.</i></p>	
<p>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 $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.</p> <p>[Students who can generate equivalent fractions can 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.]</p>	<p>--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 $\frac{3}{10}$ as $\frac{30}{100}$, and add $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$.</p> <p>CT.4.2.1.10: Use models to represent tenths and hundredths and record the representations using equivalent ratio, fraction and decimal notation.</p> <p>CT.4.2.2.20: Use models and pictures to add and subtract fractions with like and unlike denominators of two, three, four, five, six, eight and ten and match number sentences or equations to the problem.</p> <p>CT.5.2.1.6: Represent equivalent fractions, decimals, ratios and percents using models, pictures, number patterns and common factors.</p> <p>CT.5.2.2.16: Add and subtract fractions, decimals and mixed numbers using a variety of strategies (e.g., models, mental math, equivalence, substitution).</p>
<p>4.NF.6: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as $\frac{62}{100}$; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</p>	<p>CT.4.2.1.11: Use models to represent tenths and hundredths and record the representations using equivalent ratio, fraction and decimal notation.</p>

	CT.5.2.1.6: Represent equivalent fractions, decimals, ratios and percents using models, pictures, number patterns and common factors.
	CT.6.2.1.6: Determine equivalent fraction, decimal, and percentage representations and choose among these forms to solve problems.
	CT.7.2.1.2: Represent rational numbers in equivalent fraction, decimal and percentage forms.
	CT.8.2.1.4: Represent fractions, mixed numbers, decimals and percentages in equivalent forms.
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).	--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).
	CT.3.1.3.5: Demonstrate understanding of equivalence as a balanced relationship of quantities by using the equals sign to relate two quantities that are equivalent and the inequality symbols, $<$ and $>$, to relate two quantities that are not equivalent.
4.MD: Measurement and Data	
<i>Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</i>	
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)...	--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)...
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.	--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.
	CT.4.3.3.8: Use customary and metric tools and units and non-standard units to estimate, measure, and solve problems involving length and perimeter to the nearest quarter-inch or half-centimeter, area, capacity, weight, temperature and volume.

	CT.4.3.3.9: Use estimation strategies to predict reasonable answers to measurement problems and explain the reasoning used orally and in writing.
	CT.5.3.3.7: Use calendars and clocks to plan and sequence events and to solve problems involving the conversion of measures of time and elapsed time using days, hours, minutes, and seconds.
	CT.5.3.3.10: Solve length problems involving conversions of measure within the customary (inches, feet, yards and miles) or metric systems (millimeters, centimeters, meters, kilometers).
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.	--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.
	CT.6.3.3.8: Select and use appropriate strategies, tools and units to estimate and solve measurement problems involving length, perimeter, area, volume, capacity, mass and weight.
<i>Represent and Interpret Data</i>	
4.MD.4: 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. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.	--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. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.
	CT.4.4.1.2: Collect, organize and represent the data that answer the questions using simple circle graphs and broken line graphs.
	CT.5.2.2.16: Add and subtract fractions, decimals and mixed numbers using a variety of strategies such as models, mental math, equivalence and substitution.
	CT.5.4.1.1: Represent sets of data using line plots, bar graphs, double bar graphs, pictographs, simple circle graphs, stem-and-leaf plots and scatter plots.

<i>Geometric measurement: understand concepts of angle and measure angles</i>	
4.MD.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurements. 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.	--Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurements. 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.
4.MD.6: Measure angles in whole-number degrees using a protractor. Sketch angles of specific measure.	--Measure angles in whole-number degrees using a protractor. Sketch angles of specific 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).	--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).
Geometry	
<i>Draw and identify lines and angles, and classify shapes by properties of their lines and angles</i>	
4.G.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	--Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
	CT.4.3.1.2: Compare and classify polygons based on relationships such as parallel or perpendicular lines, symmetry and congruence.
	CT.5.3.1.3: Use the attributes of parallel sides, perpendicular sides, congruent sides/angles, number and length of sides or faces and number and kinds of angles (right, acute or obtuse) to describe, classify and sort polygons and solids (cube, prism, pyramid and sphere).
4.G.2: Classify two-dimensional figures based on the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.	--Classify two-dimensional figures based on the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
	CT.4.3.1.2: Compare and classify polygons based on relationships such as parallel or perpendicular lines, symmetry and congruence.

	CT.5.3.1.3: Use the attributes of parallel sides, perpendicular sides, congruent sides/angles, number and length of sides or faces and number and kinds of angles (right, acute or obtuse) to describe, classify and sort polygons and solids (cube, prism, pyramid and sphere).
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.	CT.6.3.1.1: Classify sets and subsets of polygons using the relationships of the sides (length, parallel and perpendicular) and angles (types and measures).
	--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.
	CT.4.3.1.3: Make and test conjectures about polygons using geometric relationships such as symmetry and congruence.
	CT.6.3.1.3: Identify lines of symmetry and reflections, rotations and translations of geometric figures.