Analysis of *California Mathematics* standards to *Common Core* standards-Grade 3

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
1.0 Number Sense	1.0 Students understand the place value of whole numbers.			No	CCS explains in the Grade 4 overview: "Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place." CCS does not mention what the place value limit in Grade 3.
	1.1 Count, read, and write whole numbers to 10,000.			No	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. CCS Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.
	1.2 Compare and order whole numbers to 10,000.			No	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.
	1.3 Identify the place value for each digit in numbers to 10,000.			No	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. CCS adds the comparison of one place value to the next (x 10).
	1.4 Round off numbers to 10,000 to the nearest ten, hundred, and thousand.	Numbers and Operations in Base Ten	3.NBT 1: Use place value understanding to round whole numbers to the nearest 10 or 100.	Partial	4.NBT.3: Use place value understanding to round multi-digit whole numbers to any place.

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	1.5 Use expanded notation to represent numbers (e.g., 3,206 = 3,000 + 200 + 6).			No	
2.0 Number Sense	2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:.	Operations and Algebraic Thinking	3.OAT (Cluster Statement)Use place value understanding and properties of operations to perform multi-digit arithmetic	Yes	
	2.1 Find the sum or difference of two whole numbers between 0 and 10,000.	Numbers and Operations in Base Ten	3.NBT.2: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	Yes	CCS does not set a place value limit for Grade 3. It is 1000 at Grade 2 and 1,000,000 at Grade 4.
	2.2 Memorize to automaticity the multiplication table for numbers between 1 and 10.	Operations and Algebraic Thinking Number and Operations in Base Ten	3.OA.7: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one know 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. 3.NBT.3: Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.	Yes Yes	
	2.3 Use the inverse relationship of multiplication and division to compute and check results.	Operations and Algebraic Thinking	3.OA.4: Determine the unknown whole number in a multiplication or division equation relating three whole numbers3.OA.7: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one know 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from	Yes	

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
			memory all products of two one-digit numbers. 3.OA.6: Understand division as an unknown-factor problem		
	2.4 Solve simple problems involving multiplication of multidigit numbers by one-digit numbers (3,671 x 3 = __).	Operations and Algebraic Thinking	3.OA.1: Interpret products of whole number, e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each. 3.OA.7: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one know 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	Yes Partial	CCS asks for fluency with numbers within 100.
	2.5 Solve division problems in which a multidigit number is evenly divided by a one-digit number (135 ÷ 5 = __).	Operations and Algebraic Thinking	3. OA.2: Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares or a number of groups can be expressed as 56 ÷ 8. 3.OA.7: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one know 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	Yes Partial	CCS only designates within 100.
	2.6 Understand the special properties of 0 and 1 in multiplication and division.			No	

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
	2.7 Determine the unit cost when given the total cost and number of units.			No	
	2.8 Solve problems that require two or more of the skills mentioned above.	Operations and Algebraic Thinking	3.OA.3: Use multiplication and division with 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 3.OA.8: Solve two-step word problems using the four operations. 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.	Yes	
3.0 Number Sense	3.0 Students understand the relationship between whole numbers, simple fractions, and decimals.	Number and Operations – Fractions	3.NF: (Cluster Statement) Develop an understanding of fractions as numbers.	Partial	CCS does not explicitly describe the relationship between whole numbers, simple fractions, and decimals. 4.NF: (Cluster Statement) Understand decimal notation for fractions, and compare decimal fractions.
	3.1 Compare fractions represented by drawings or concrete materials to show equivalency and to add and subtract simple fractions in context (e.g., 1/2 of a pizza is the same amount as 2/4 of another pizza that is the same size; show that 3/8 is larger than 1/4).	Number and Operations-Fractions	3.NF.3: Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. 3.NF.3a: Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. 3.NF.3b: Recognize and generate simple equivalent fractions, e.g., ½ = 2/4, 4/6 = 2/3. Explain why the	Yes	

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			fractions are equivalent, e.g., by using a visual fraction model. 3.NF.3c: Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. 3.NF.3d: Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, <, and justify the conclusions, e.g., by using a visual fraction model.		
	3.2 Add and subtract simple fractions (e.g., determine that 1/8 + 3/8 is the same as 1/2).	Number and Operations-Fractions	3.NF.2: Understand a fraction as a number on the number line; represent fractions on a number line diagram. 3.NF.2a: Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line. 3.NF.2b: Represent a fraction a/b on a number line diagram by marking off a length of 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.	Partial	CCS does not mention adding and subtracting of simple fractions. However, it is implied in statement 3.NF.2b.

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	3.3 Solve problems involving addition, subtraction, multiplication, and division of money amounts in decimal notation and multiply and divide money amounts in decimal notation by using whole-number multipliers and divisors.			No	5.NBT.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
	3.4 Know and understand that fractions and decimals are two different representations of the same concept (e.g., 50 cents is 1/2 of a dollar, 75 cents is 3/4 of a dollar).			No	4.NF.6: Use decimal notation for fractions with denominators 10 or 100. CCS describes the two different representations with denominators that are the powers of 10.
1.0 Algebra Functions	1.0 Students select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number relationships.	Operations and Algebraic Thinking	3.OA: (Cluster Statement) Solve problems involving the four operations, and identify and explain patterns in arithmetic.	Yes	
	1.1 Represent relationships of quantities in the form of mathematical expressions, equations, or inequalities.		3.OA.8: Solve two-step word problems using the four operations. 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.	Yes	
	1.2 Solve problems involving numeric equations or inequalities.	Operations and Algebraic Thinking	3.OA.8: Solve two-step word problems using the four operations. 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	Yes	

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
	1.3 Select appropriate operational and relational symbols to make an expression true (e.g., if 4 __ 3 = 12, what operational symbol goes in the blank?).			No	
	1.4 Express simple unit conversions in symbolic form (e.g., __ inches = __ feet x 12).			No	5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5cm to 0.05m), and use these conversions in solving multi-step, real world problems.
	1.5 Recognize and use the commutative and associative properties of multiplication (e.g., if 5 x 7 = 35, then what is 7 x 5? and if 5 x 7 x 3 = 105, then what is 7 x 3 x 5?).	Operations and Algebraic Thinking	3.OA.5: Apply properties of operations as strategies to multiply and divide.	Yes	CCS adds the distributive property.
2.0 Algebra Functions	2.0 Students represent simple functional relationships:	Operations and Algebraic Thinking	3.OA: (Cluster Statement) Represent and solve problems involving multiplication and division.	Partial	
	2.1 Solve simple problems involving a functional relationship between two quantities (e.g., find the total cost of multiple items given the cost per unit).			No	
	2.2 Extend and recognize a linear pattern by its rules (e.g., the number of legs on a given number of horses may be calculated by counting by 4s or by multiplying the number of horses by 4).			No	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.

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
1.0 Measurement and Geometry	1.0 Students choose and use appropriate units and measurement tools to quantify the properties of objects.	Measurement and Data	3.MD: Geometric measurement: understand concepts of area and relate area to multiplication and to addition. 3.MD: (Cluster Statements) Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	Partial	
	1.1 Choose the appropriate tools and units (metric and U.S.) and estimate and measure the length, liquid volume, and weight/mass of given objects.	Measurement and Data	3.MD.2: Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.	Partial	CCS does not mention length. It also does not mention U.S. measurement units. It also asks for the ability to utilize the four operations in solving problems dealing with volume and mass.
	1.2 Estimate or determine the area and volume of solid figures by covering them with squares or by counting the number of cubes that would fill them.	Measurement and Data	3.MD.5: Recognize area as an attribute of plane figures and understand concepts of area measurement. 3.MD.5a: A square with side length 1 unit, called a “unit square” is said to have “one square unit” of area, and can be used to measure area. 3.MD.5b: A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have and area of *n* square units.	Partial	5.MD.3: Recognize volume as an attribute of solid figures and understand concepts of volume measurement. 5.MD.3a: A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. 5.MD.3b: A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
	1.3 Find the perimeter of a polygon with integer sides.	Measurement and Data	3.MD.8: Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	Yes	
	1.4 Carry out simple unit conversions within a system of measurement (e.g., centimeters and meters, hours and minutes).			No	5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5cm to 0.05m), and use these conversions in solving multi-step, real world problems.
2.0 Measurement and Geometry	2.0 Students describe and compare the attributes of plane and solid geometric figures and use their understanding to show relationships and solve problems.	Geometry	3.G: (Cluster Statement) Reason with shapes and their attributes.	Partial	
	2.1 Identify, describe, and classify polygons (including pentagons, hexagons, and octagons).			No	2.G.1: Reason and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons and cubes.
	2.2 Identify attributes of triangles (e.g., two equal sides for the isosceles triangle, three equal sides for the equilateral triangle, right angle for the right triangle).	Geometry	3.G 1: Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	Partial	CCS does not specifically mention triangles but uses the word “shapes”.

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	2.3 Identify attributes of quadrilaterals (e.g., parallel sides for the parallelogram, right angles for the rectangle, equal sides and right angles for the square).	Geometry	3.G 1: Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	Yes	
	2.4 Identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle.			No	4.MD.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. CCS states that students need to "understand concepts of angle measurement" and not specifically right angles.
	2.5 Identify, describe, and classify common three-dimensional geometric objects (e.g., cube, rectangular solid, sphere, prism, pyramid, cone, cylinder).			No	2.G.1: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
	2.6 Identify common solid objects that are the components needed to make a more complex solid object.			No	1.G.2: Compose two –dimensional shapes (rectangle, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cube, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.

Strand	CA Math Standard	Domain	Common Core Standard (CCS)	Alignment	Comments in reference to CCS
1.0 Statistics, Data Analysis, and Probability	1.0 Students conduct simple probability experiments by determining the number of possible outcomes and make simple predictions.			No	7.SP: (Cluster Statement) Use random sampling to draw inferences about a population.
	1.1 Identify whether common events are certain, likely, unlikely, or improbable.			No	7.SP.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
	1.2 Record the possible outcomes for a simple event (e.g., tossing a coin) and systematically keep track of the outcomes when the event is repeated many times.			No	7.SP.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.
	1.3 Summarize and display the results of probability experiments in a clear and organized way (e.g., use a bar graph or a line plot).			No	7.SP.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. 7.SP.7: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible source of the discrepancy.
	1.4 Use the results of probability experiments to predict future events (e.g., use a line plot to predict the temperature forecast for the next day).			No	7.SP.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the

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					approximate relative frequency given the probability. 7.SP.7: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible source of the discrepancy.
1.0 Mathematical Reasoning	1.0 Students make decisions about how to approach problems.				
	1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.	Mathematical Practice Standards	MP1: Make sense of problems and persevere in solving them.	Yes	
	1.2 Determine when and how to break a problem into simpler parts.	Mathematical Practice Standards	MP1: Make sense of problems and persevere in solving them.	Yes	
2.0 Mathematical Reasoning	2.0 Students use strategies, skills, and concepts in finding solutions.				
	2.1 Use estimation to verify the reasonableness of calculated results.	Mathematical Practice Standards	MP1: Make sense of problems and persevere in solving them	Yes	No estimation-They make conjectures about the form and meaning of the solution
	2.2 Apply strategies and results from simpler problems to more complex problems.				
	2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.	Mathematical Practice Standards	MP5: Use appropriate tools strategically.	Yes	

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	2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.	Mathematical Practice Standards	MP1: Make sense of problems and persevere in solving them.	Yes	
	2.5 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.	Mathematical Practice Standards	MP6: Attend to precision.	Yes	
	2.6 Make precise calculations and check the validity of the results from the context of the problem.	Mathematical Practice Standards	MP6: Attend to precision.	Yes	
3.0 Mathematical Reasoning	3.0 Students move beyond a particular problem by generalizing to other situations.	Mathematical Practice Standards	MP7: Look for and make use of structure.	Yes	
	3.1 Evaluate the reasonableness of the solution in the context of the original situation.	Mathematical Practice Standards	MP8: Look for and express regularity in repeated reasoning.	Yes	
	3.2 Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.	Mathematical Practice Standards	MP7: Look for and make use of structure.	Yes	
	3.3 Develop generalizations of the results obtained and apply them in other circumstances.	Mathematical Practice Standards	MP7: Look for and make use of structure.	Yes	

Grade 3 Common Core Standards not found in Grade 3 CA Mathematics Standards

Domain	Common Core standard	Found in CA Math standards
Operations and Algebraic Thinking	3.OA 9: Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.	Partial Grade 2 SDAP 2.1
Measurement and Data	3.MD 1: Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving additions and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	No Grade 2 has time to the quarter hour and intervals of one hour. MG: 1.4 and 1.5
Measurement and Data	3.MD 4: Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units-whole numbers, halves, or quarters.	No
Measurement and Data	3.MD 6: Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units.	Partial Grade 4 MG 1.1
Measurement and Data	3.MD 7: Relate area to the operations of multiplication and addition. A. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. B. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning. C. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a x b and a x c. Use area models to represent the distributive property in mathematical reasoning. D. Recognize area as an additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.	Partial Grade 5 MG 1.1
Geometry	3.G 2: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	No

Grade 3 CA Mathematics Standards not found in the Grade 3 Common Core Standards

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Number Sense 1.0	1.0 Students understand the place value of whole numbers.	No-CCS explains in the Grade 4 overview: "Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place." CCS does not mention what the place value limit in Grade 3.
Number Sense 1.0	1.1 Count, read, and write whole numbers to 10,000.	Yes 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. CCS Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.
Number Sense 1.0	1.2 Compare and order whole numbers to 10,000.	Yes. 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.
Number Sense 1.0	1.3 Identify the place value for each digit in numbers to 10,000.	Yes. 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. CCS adds the comparison of one place value to the next (x 10).
Number Sense 1.0	1.5 Use expanded notation to represent numbers (e.g., 3,206 = 3,000 + 200 + 6).	No
Number Sense 2.0	2.6 Understand the special properties of 0 and 1 in multiplication and division.	No
Number Sense 2.0	2.7 Determine the unit cost when given the total cost and number of units.	No
Number Sense 3.0	3.3 Solve problems involving addition, subtraction, multiplication, and division of money amounts in decimal notation and multiply and divide money amounts in decimal notation by using whole-number multipliers and divisors.	Yes 5.NBT.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

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Number Sense 3.0	3.4 Know and understand that fractions and decimals are two different representations of the same concept (e.g., 50 cents is 1/2 of a dollar, 75 cents is 3/4 of a dollar).	Yes 4.NF.6: Use decimal notation for fractions with denominators 10 or 100. CCS describes the two different representations with denominators that are the powers of 10.
Algebra Function 1.0	1.3 Select appropriate operational and relational symbols to make an expression true (e.g., if 4 __ 3 = 12, what operational symbol goes in the blank?).	No
Algebra Functions 1.0	1.4 Express simple unit conversions in symbolic form (e.g., __ inches = __ feet x 12).	Yes 5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5cm to 0.05m), and use these conversions in solving multi-step, real world problems.
Algebra Function 2.0	2.1 Solve simple problems involving a functional relationship between two quantities (e.g., find the total cost of multiple items given the cost per unit).	No
Algebra Functions 2.0	2.2 Extend and recognize a linear pattern by its rules (e.g., the number of legs on a given number of horses may be calculated by counting by 4s or by multiplying the number of horses by 4).	Yes 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.
Measurement and Geometry 1.0	1.4 Carry out simple unit conversions within a system of measurement (e.g., centimeters and meters, hours and minutes).	Yes 5.MD.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5cm to 0.05m), and use these conversions in solving multi-step, real world problems.
Measurement and Geometry 2.0	2.1 Identify, describe, and classify polygons (including pentagons, hexagons, and octagons).	Yes 2.G.1: Reason and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons and cubes.
Measurement and Geometry 2.0	2.4 Identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle.	Yes 4.MD.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. CCS states that students need to "understand concepts of angle measurement" and not specifically right angles.

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Measurement and Geometry 2.0	2.5 Identify, describe, and classify common three-dimensional geometric objects (e.g., cube, rectangular solid, sphere, prism, pyramid, cone, cylinder).	2.G.1: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
Measurement and Geometry 2.0	2.6 Identify common solid objects that are the components needed to make a more complex solid object.	Yes 1.G.2: Compose two –dimensional shapes (rectangle, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cube, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
Statistics, Data Analysis, and Probability 1.0	1.0 Students conduct simple probability experiments by determining the number of possible outcomes and make simple predictions.	Yes 7.SP: (Cluster Statement) Use random sampling to draw inferences about a population.
Statistics, Data Analysis, and Probability 1.0	1.1 Identify whether common events are certain, likely, unlikely, or improbable.	Yes 7.SP.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around ½ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
Statistics, Data Analysis, and Probability 1.0	1.2 Record the possible outcomes for a simple event (e.g., tossing a coin) and systematically keep track of the outcomes when the event is repeated many times.	Yes 7.SP.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.
Statistics, Data Analysis, and Probability 1.0	1.3 Summarize and display the results of probability experiments in a clear and organized way (e.g., use a bar graph or a line plot).	Yes 7.SP.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. 7.SP.7: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible source of the discrepancy.
Statistics, Data Analysis, and Probability 1.0	1.4 Use the results of probability experiments to predict future events (e.g., use a line plot to predict the temperature forecast for the next day).	Yes 7.SP.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the

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		approximate relative frequency given the probability. 7.SP.7: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible source of the discrepancy.