Introduction to the **Revised Mathematics TEKS**

VERTICAL ALIGNMENT CHART
KINDERGARTEN - GRADE 3

TEA™ TEXAS EDUCATION AGENCY

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Kindergarten	Grade 1	Grade 2	Grade 3
(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:			
(A) apply mathematics to problems arising in everyday life, society, and the workplace.			
(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.			
(C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.			
(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.			
(E) create and use representations to organize, record, and communicate mathematical ideas.			
(F) analyze mathematical relationships to connect and communicate mathematical ideas.			
(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.			

Kindergarten	Grade 1	Grade 2	Grade 3
	Counting and Recognizing Whole Numbers		
(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	
(A) count forward and backward to at least 20 with and without objects.			
(B) read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures.			
(C) count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order.			
(D) recognize instantly the quantity of a small group of objects in organized and random arrangements.	(A) recognize instantly the quantity of structured arrangements.		
(E) generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20.			
(F) generate a number that is one more than or one less than another number up to at least 20.	(D) generate a number that is greater than or less than a given whole number up to 120.	(C) generate a number that is greater than or less than a given whole number up to 1,200.	

Kindergarten	Grade 1	Grade 2	Grade 3
Comparing and Ordering Numbers			
(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:
(G) compare sets of objects up to at least 20 in each set using comparative language.	(E) use place value to compare whole numbers up to 120 using comparative language.	(D) use place value to compare and order whole numbers up to 1,200 using comparative language, numbers, and symbols (>, <, or =).	(D) compare and order whole numbers up to 100,000 and represent comparisons using the symbols >, <, or =.
(H) use comparative language to describe two numbers up to 20 presented as written numerals.			
	(F) order whole numbers up to 120 using place value and open number lines.		
	(G) represent the comparison of two numbers to 100 using the symbols >, <, or =.		

Kindergarten	Grade 1	Grade 2	Grade 3
	Representing and Relating Numbers Using Number Lines		
	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:
	(F) order whole numbers up to 120 using place value and open number lines.	(E) locate the position of a given whole number on an open number line.	(C) represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers.
			(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:
			(A) represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines.
		(F) name the whole number that corresponds to a specific point on a number line.	(B) determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line.

Kindergarten	Grade 1	Grade 2	Grade 3
Composing and Decomposing Numbers: Place Value			
(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:	(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:
(I) compose and decompose numbers up to 10 with objects and pictures.	(B) use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.	(A) use concrete and pictorial models to compose and decompose numbers up to 1,200 in more than one way as a sum of so many thousands, hundreds, tens, and ones.	(A) compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate.
	(C) use objects, pictures, and expanded and standard forms to represent numbers up to 120.	(B) use standard, word, and expanded forms to represent numbers up to 1,200.	
			(B) describe the mathematical relationships found in the base-10 place value system through the hundred thousands place.

Kindergarten	Grade 1	Grade 2	Grade 3
		Representing Fraction Concepts	
		(3) Number and operations. The student applies mathematical process standards to recognize and represent fractional units and communicates how they are used to name parts of a whole. The student is expected to:	(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:
		(A) partition objects into equal parts and name the parts, including halves, fourths, and eighths, using words.	(A) represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines.
		(D) identify examples and non-examples of halves, fourths, and eighths.	
		(C) use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole.	(E) solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8.
		(B) explain that the more fractional parts used to make a whole, the smaller the part. the fewer the fractional parts, the larger the part.	(C) explain that the unit fraction $1/b$ represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number.
			(D) compose and decompose a fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts $1/b$.

Kindergarten	Grade 1	Grade 2	Grade 3
			Determining Equivalence and Comparing Part-to-Whole Relationships
			(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:
			(F) represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines.
			(G) explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model.
			(H) compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models.

Kindergarten	Grade 1	Grade 2	Grade 3
	Adding and Subtracting Whole Numbers, Decimals, and Rational Numbers		
(3) Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:	(3) Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:	(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:	(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:
(A) model the action of joining to represent addition and the action of separating to represent subtraction.	(B) use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] - 3.		(A) solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction.
(B) solve word problems using objects and drawings to find sums up to 10 and differences within 10.	(C) compose 10 with two or more addends with and without concrete objects.		
(C) explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences.	(E) explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences.	(B) add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.	
	(A) use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99.	(C) solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms.	
	(D) apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10.	(A) recall basic facts to add and subtract within 20 with automaticity.	
	(F) generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20.	(D) generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.	

Kindergarten	Grade 1	Grade 2	Grade 3
			Applying Strategies for Estimation
			(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:
			(B) round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems.
Representing and Determining Values of Coins and Bills			
(4) Number and operations. The student applies mathematical process standards to identify coins in order to recognize the need for monetary transactions. The student is expected to:	(4) Number and operations. The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:	(5) Number and operations. The student applies mathematical process standards to determine the value of coins in order to solve monetary transactions. The student is expected to:	(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:
(A) identify U.S. coins by name, including pennies, nickels, dimes, and quarters.	(A) identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them.		
	(B) write a number with the cent symbol to describe the value of a coin.	(B) use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins.	
	(C) use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.	(A) determine the value of a collection of coins up to one dollar.	(C) determine the value of a collection of coins and bills.

Kindergarten	Grade 1	Grade 2	Grade 3
		Multiplying Whole Numbers, Decimals, Fractions, and Rational Numbers	
		(6) Number and operations. The student applies mathematical process standards to connect repeated addition and subtraction to multiplication and division situations that involve equal groupings and shares. The student is expected to:	(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:
		(A) model, create, and describe contextual multiplication situations in which equivalent sets of concrete objects are joined.	(D) determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10.
			(E) represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting.
			(F) recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts.
			(G) use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.

Kindergarten	Grade 1	Grade 2	Grade 3
		Dividing Whole Numbers, Decimals, Fractions, and Rational Numbers	
		(6) Number and operations. The student applies mathematical process standards to connect repeated addition and subtraction to multiplication and division situations that involve equal groupings and shares. The student is expected to:	(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:
		(B) model, create, and describe contextual division situations in which a set of concrete objects is separated into equivalent sets.	(H) determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally.
			(I) determine if a number is even or odd using divisibility rules.
			(J) determine a quotient using the relationship between multiplication and division.
			(K) solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.

Kindergarten	Grade 1	Grade 2	Grade 3
Connecting Counting and Reciting			
(5) Algebraic reasoning. The student applies mathematical process standards to identify the pattern in the number word list. The student is expected to:	(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:		
(A) recite numbers up to at least 100 by ones and tens beginning with any given number.	(A) recite numbers forward and backward from any given number between 1 and 120.		
	Connecting Counting and Divisibility		
	(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(7) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:
	(B) skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.	(A) determine whether a number up to 40 is even or odd using pairings of objects to represent the number.	
	Connecting Counting and Place Value		
	(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(7) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	
	(C) use relationships to determine the number that is 10 more and 10 less than a given number up to 120.	(B) use an understanding of place value to determine the number that is 10 or 100 more or less than a given number up to 1,200.	

Kindergarten	Grade 1	Grade 2	Grade 3
	Representing Problem Situations with the equal sign		
	(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(7) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:
	(D) represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences.	(C) represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.	(A) represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations.
	(E) understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s).		
			(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.
	Representing and Solving Problems with Equations and Inequalities		
	(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(7) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:	(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:
	(F) determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation.	(C) represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.	(A) represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations.
	(G) apply properties of operations to add and subtract two or three numbers.		(D) determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product.
			(B) represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.

Kindergarten	Grade 1	Grade 2	Grade 3
			Describing and Simplifying Numerical Expressions
			(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:
			(C) describe a multiplication expression as a comparison such as 3 x 24 represents 3 times as much as 24.
			Applying Multiple Representations for Foundations of Functions
			(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:
			(E) represent real-world relationships using number pairs in a table and verbal descriptions.

Kindergarten	Grade 1	Grade 2	Grade 3
Defining Attributes of One-Dimensional, Two-Dimensional, and Three-Dimensional Figures			
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(8) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:
(A) identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles.	(C) create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons.	(A) create two-dimensional shapes based on given attributes, including number of sides and vertices.	(B) use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories.
(D) identify attributes of two- dimensional shapes using informal and formal geometric language interchangeably.	(D) identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language.		
(B) identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world.	(E) identify three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric language.		
(C) identify two-dimensional components of three-dimensional objects.	(B) distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape.		

Kindergarten	Grade 1	Grade 2	Grade 3
Classifying and Sorting Two-Dimensional and Three-Dimensional Figures			
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(8) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:
(E) classify and sort a variety of regular and irregular two- and three-dimensional figures regardless of orientation or size.	(A) classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language.	(C) classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices.	(A) classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language.
		(B) classify and sort three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes as special rectangular prisms), and triangular prisms, based on attributes using formal geometric language.	
Composing and Decomposing Two-Dimensional and Three-Dimensional Figures			
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	(8) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:	
(F) create two-dimensional shapes using a variety of materials and drawings.	(F) compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible.	(D) compose two-dimensional shapes and three-dimensional solids with given properties or attributes.	
		(E) decompose two-dimensional shapes such as cutting out a square from a rectangle, dividing a shape in half, or partitioning a rectangle into identical triangles and identify the resulting geometric parts.	

Kindergarten	Grade 1	Grade 2	Grade 3
Measuring Attributes of Two-Dimensional and Three-Dimensional Objects			
(7) Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:			(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
(A) give an example of a measurable attribute of a given object, including length, capacity, and weight.			(D) determine when it is appropriate to use measurements of liquid volume (capacity) or weight.
			(E) determine liquid volume (capacity) or weight using appropriate units and tools.
(B) compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.			
Measuring Length of Two-Dimensional and Three-Dimensional Objects			
(7) Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:	(7) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:	(9) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:	(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
(A) give an example of a measurable attribute of a given object, including length, capacity, and weight.	(A) use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement.	(D) determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes.	
	(B) illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other.	(A) find the length of objects using concrete models for standard units of length.	
	(D) describe a length to the nearest whole unit using a number and a unit.		
	(C) measure the same object/distance with units of two different lengths and describe how and why the measurements differ.	(B) describe the inverse relationship between the size of the unit and the number of units needed to equal the length of an object.	
		(E) determine a solution to a problem involving length, including estimating lengths.	(B) determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems.

Kindergarten	Grade 1	Grade 2	Grade 3
		Measuring Time	
	(7) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:	(9) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:	(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
	(E) tell time to the hour and half hour using analog and digital clocks.	(G) read and write time to the nearest one-minute increment using analog and digital clocks and distinguish between a.m. and p.m.	(C) determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes.
		Measuring Distance on a Number Line	
		(9) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to	(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
		(C) represent whole numbers as distances from any given location on a number line.	(A) represent fractions of halves, fourths, and eighths as distances from zero on a number line.

Kindergarten	Grade 1	Grade 2	Grade 3
		Measuring Area and Volume	
	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three- dimensional solids to develop generalizations about their properties. The student is expected to:	(9) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:	(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:
		(F) use concrete models of square units to find the area of a rectangle by covering it with no gaps or overlaps, counting to find the total number of square units, and describing the measurement using a number and the unit.	
			(C) determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row.
			(D) decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area.
	(G) partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words.		(E) decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape.
	(H) identify examples and non-examples of halves and fourths.		

Kindergarten	Grade 1	Grade 2	Grade 3
Representing Data			
(8) Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:	(8) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:	(10) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:	(8) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:
(A) collect, sort, and organize data into two or three categories.	(A) collect, sort, and organize data in up to three categories using models / representations such as tally marks or T-charts.		
		(A) explain that the length of a bar in a bar graph or the number of pictures in a pictograph represents the number of data points for a given category.	
(B) use data to create real-object and picture graphs.	(B) use data to create picture and bar-type graphs.	(B) organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more.	(A) summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals.
Drawing Conclusions and Solving Problems Using Representations of Data			
(8) Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:	(8) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:	(10) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:	(8) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:
(C) draw conclusions from real-object and picture graphs.	(C) draw conclusions and generate and answer questions using information from picture and bar-type graphs.	(D) draw conclusions and make predictions from information in a graph.	
		(C) write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one.	(B) solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.

Kindergarten	Grade 1	Grade 2	Grade 3
Considering Income and Careers			
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(11) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:
(A) identify ways to earn income.	(A) define money earned as income.		(A) explain the connection between human capital/labor and income.
(D) distinguish between wants and needs and identify income as a source to meet one's wants and needs.	(B) identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs.		
		(F) differentiate between producers and consumers and calculate the cost to produce a simple item.	(B) describe the relationship between the availability or scarcity of resources and how that impacts cost.
(B) differentiate between money received as income and money received as gifts.			
(C) list simple skills required for jobs.			
	Considering Saving and Investing		
	(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(11) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:
	(C) distinguish between spending and saving.	(A) calculate how money saved can accumulate into a larger amount over time.	(E) list reasons to save and explain the benefit of a savings plan, including for college.
		(B) explain that saving is an alternative to spending.	(C) identify the costs and benefits of planned and unplanned spending decisions.

Kindergarten	Grade 1	Grade 2	Grade 3
		Considering Credit and Debt	
		(D) identify examples of borrowing and distinguish between responsible and irresponsible borrowing.	(D) explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower's responsibility to pay it back to the lender, usually with interest.
		(E) identify examples of lending and use concepts of benefits and costs to evaluate lending decisions.	
	Considering Planning and Money Management		
	(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(11) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:	(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:
	(D) consider charitable giving.		(F) identify decisions involving income, spending, saving, credit, and charitable giving.
		(C) distinguish between a deposit and a withdrawal.	