Grade 3 Math TEKS and Related Prior Learning TEKS

	Grade 3 Math TEKS/SE	Prior Learning TEKS/SE
3.2	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:	
3.2A	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.	2.2A 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. 2.2B use standard, word, and expanded forms to represent numbers up to 1,200.
3.2B	describe the mathematical relationships found in the base-10 place value system through the hundred thousands place.	
3.2C	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.	2.2E locate the position of a given whole number on an open number line.
3.2D	compare and order whole numbers up to 100,000 and represent comparisons using the symbols >, <, or =.	2.2D use place value to compare and order whole numbers up to 1,200 using comparative language, numbers, and symbols (>, <, or =).
3.3	Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:	
3.3A	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.	2.3A partition objects into equal parts and name the parts, including halves, fourths, and eighths, using words. 2.3D identify examples and non-examples of halves, fourths, and eighths.
3.3B	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.	2.2F name the whole number that corresponds to a specific point on a number line.
3.3C	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.	2.3B explain that the more fractional parts used to make a whole, the smaller the part. the fewer the fractional parts, the larger the part.
3.3D	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.*	

3.3E	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.	2.3C use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole.
3.3F	represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines.	
3.3G	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.	
3.3H	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.	
3.4	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:	
3.4A	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.	2.4A recall basic facts to add and subtract within 20 with automaticity. 2.4B 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. 2.4C 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. 2.4D generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.
3.4B	round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems.	2.5A determine the value of a collection of coins up to one dollar.
3.4C	determine the value of a collection of coins and bills.	

3.4D	determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10.	2.6A model, create, and describe contextual multiplication situations in which equivalent sets of concrete objects are joined.
3.4E	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.	
3.4F	recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts.	
3.4G	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.	
3.4H	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.	2.6B model, create, and describe contextual division situations in which a set of concrete objects is separated into equivalent sets.
3.4I	determine if a number is even or odd using divisibility rules.	
3.4J	determine a quotient using the relationship between multiplication and division.	
3.4K	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.	
3.5	Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	
3.5A	represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations.	2.7C represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.
3.5B	represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.	
3.5C	describe a multiplication expression as a comparison such as 3 x 24 represents 3 times as much as 24.	
3.5D	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.	1.5G apply properties of operations to add and subtract two or three numbers.

3.5E	represent real-world relationships using number pairs in a table and verbal descriptions.	
3.6	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:	
3.6A	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.	2.8B 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. 2.8C classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices.
3.6B	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.	2.8A create two-dimensional shapes based on given attributes, including numbe r of sides and vertices.
3.6C	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.	
3.6D	decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area.	
3.6E	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.	1.6G partition two- dimensional figures into two and four fair shares or equal parts and describe the parts using words. 1.6H identify examples and non-examples of halves and fourths.
3.7	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:	
3.7A	represent fractions of halves, fourths, and eighths as distances from zero on a number line.	2.9C represent whole numbers as distances from any given location on a number line.

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3.7B	determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems.	2.9E determine a solution to a problem involving length, including estimating lengths.
3.7C	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.	2.9G read and write time to the nearest one-minute increment using analog and digital clocks and distinguish between a.m. and p.m.
3.7D	determine when it is appropriate to use measurements of liquid volume (capacity) or weight.	
3.7E	determine liquid volume (capacity) or weight using appropriate units and tools.	
3.8	Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:	
3.8A	summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals.	2.10B organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more.
3.8B	solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.	2.10C write and solve one- step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one.
3.9	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:	
3.9A	explain the connection between human capital/labor and income.	1.9A define money earned as income.
3.9B	describe the relationship between the availability or scarcity of resources and how that impacts cost.	2.11F differentiate between producers and consumers and calculate the cost to produce a simple item.
3.9C	identify the costs and benefits of planned and unplanned spending decisions.	2.11B explain that saving is an alternative to spending.
3.9D	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.	2.11D identify examples of borrowing and distinguish between responsible and irresponsible borrowing.
3.9E	list reasons to save and explain the benefit of a savings plan, including for college.	2.11A calculate how money saved can accumulate into a larger amount over time.
3.9F	identify decisions involving income, spending, saving, credit, and charitable giving.	1.9D consider charitable giving.