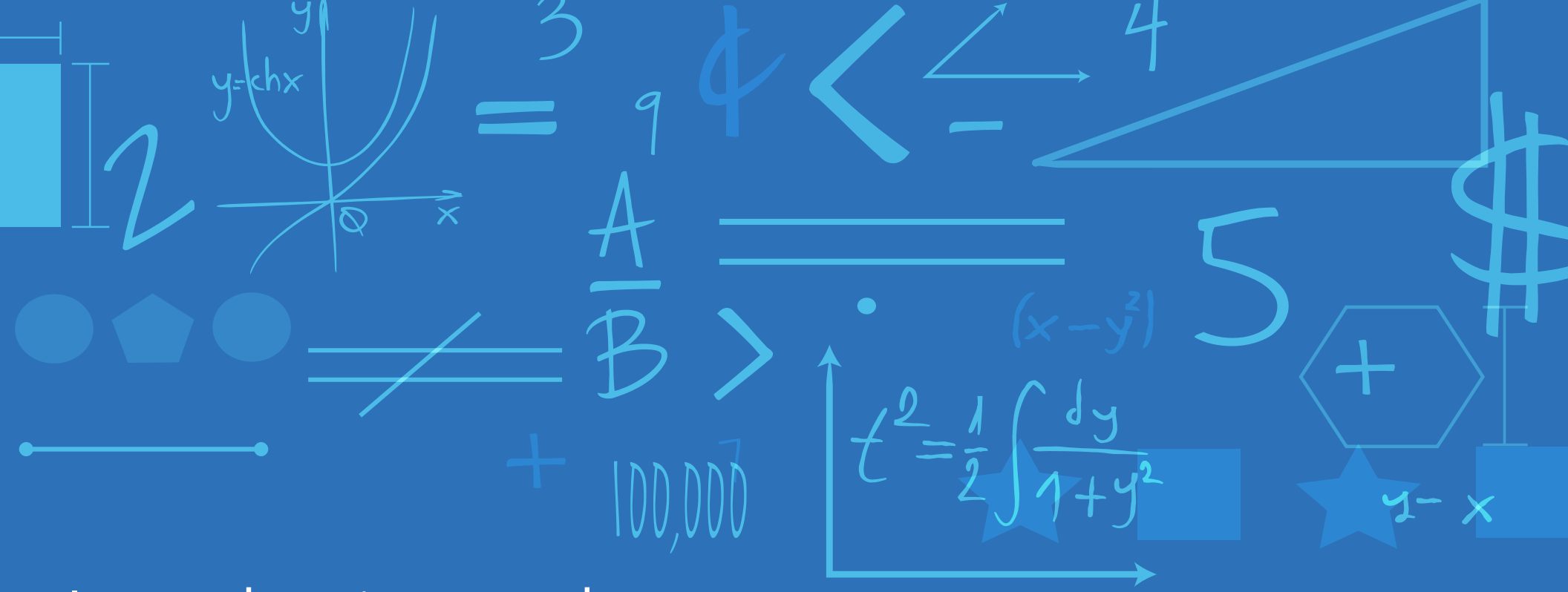

Introduction to the **Revised Mathematics TEKS**

SIDE-BY-SIDE TEKS COMPARISON
GRADE 2

TEA™
TEXAS EDUCATION AGENCY

Old TEKS	Current TEKS (2012)	Supporting Information	Notes
(a) Introduction. (1) Within a well-balanced mathematics curriculum, the primary focal points at Grade 2 are developing an understanding of the base-ten place value system, comparing and ordering whole numbers, applying addition and subtraction, and using measurement processes.	(a) Introduction. (1) The desire to achieve educational excellence is the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on computational thinking, mathematical fluency, and solid understanding, Texas will lead the way in mathematics education and prepare all Texas students for the challenges they will face in the 21st century.	The definition of a well-balanced mathematics curriculum has expanded to include the CCRS. A focus on mathematical fluency and solid understanding allows for rich exploration of the primary focal points.	
(a) Introduction. (2) Throughout mathematics in Kindergarten-Grade 2, students build a foundation of basic understandings in number, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; measurement; and probability and statistics. Students use numbers in ordering, labeling, and expressing quantities and relationships to solve problems and translate informal language into mathematical language and symbols. Students use objects to create and identify patterns and use those patterns to express relationships, make predictions, and solve problems as they build an understanding of number, operation, shape, and space. Students progress from informal to formal language to describe two- and three-dimensional geometric figures and likenesses in the physical world. Students begin to develop measurement concepts as they identify and compare attributes of objects and situations. Students collect, organize, and display data and use information from graphs to answer questions, make summary statements, and make informal predictions based on their experiences.	(a) Introduction. (4) The primary focal areas in Grade 2 are making comparisons within the base-10 place value system, solving problems with addition and subtraction within 1,000, and building foundations for multiplication. (A) Students develop an understanding of the base-10 numeration system and place value concepts. Student's understanding of base-10 numeration includes ideas of counting in units and multiples of thousands, hundreds, tens, and ones, and a grasp of number relationships, which students demonstrate in a variety of ways. (B) Students identify situations in which addition and subtraction are useful to solve problems. Students develop a variety of strategies to use efficient, accurate, and generalizable methods to add and subtract multi-digit whole numbers. (C) Students use the relationship between skip counting and equal groups of objects to represent the addition or subtraction of equivalent sets, which builds a strong foundation for multiplication and division.	The 2012 paragraph that highlights more specifics about grade 2 mathematics content follows paragraphs about the mathematical process standards and mathematical fluency. This supports the notion that the TEKS should be learned in a way that integrates the mathematical process standards in an effort to develop fluency. The 2012 paragraph has been updated to align to the 2012 grade 5 mathematics TEKS. The 2012 paragraph highlights focal areas or topics that receive emphasis in this grade level. These are different from focal points which are part of the *Texas Response to Curriculum Focal Points [TXRCFP]*. "[A] curriculum focal point is not a single TEKS statement; a curriculum focal point is a mathematical idea or theme that is developed through appropriate arrangements of TEKS statements at that grade level that lead into a connected grouping of TEKS at the next grade level" (TEA, 2010, p. 5). The focal areas are found within the focal points. The focal points may represent a subset of a focal area, or a focal area may represent a subset of a focal point. The focal points within the *TXRCFP* list related grade-level TEKS.	

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Old TEKS	Current TEKS (2012)	Supporting Information	Notes
		The Revised TEKS (2012) include the use of the words "automaticity," "fluency"/"fluently," and "proficiency" with references to standard algorithms. Attention is being given to these descriptors to indicate benchmark levels of skill to inform intervention efforts at each grade level. These benchmark levels are aligned to national recommendations for the development of algebra readiness for enrollment in Algebra I.	
(a) Introduction. (3) Throughout mathematics in Kindergarten-Grade 2, students develop numerical fluency with conceptual understanding and computational accuracy. Students in Kindergarten-Grade 2 use basic number sense to compose and decompose numbers in order to solve problems requiring precision, estimation, and reasonableness. By the end of Grade 2, students know basic addition and subtraction facts and are using them to work flexibly, efficiently, and accurately with numbers during addition and subtraction computation.	(a) Introduction. (3) For students to become fluent in mathematics, students must develop a robust sense of number. The National Research Council's report, "Adding It Up," defines procedural fluency as "skill in carrying out procedures flexibly, accurately, efficiently, and appropriately." As students develop procedural fluency, they must also realize that true problem solving may take time, effort, and perseverance. Students in Grade 2 are expected to perform their work without the use of calculators.	Automaticity refers to the rapid recall of facts and vocabulary. For example, we would expect a fifth-grade student to recall rapidly the sum of 5 and 3 or to identify rapidly a closed figure with 3 sides and 3 angles. To be mathematically proficient, students must develop conceptual understanding, procedural fluency, strategic competence, adaptive reasoning, and productive disposition (National Research Council, 2001, p. 116). "Procedural fluency refers to knowledge of procedures, knowledge of when and how to use them appropriately, and skill in performing them flexibly, accurately, and efficiently" (National Research Council, 2001, p. 121). "Students need to see that procedures can be developed that will solve entire classes of problems, not just individual problems" (National Research Council, 2001, p. 121). Procedural fluency and conceptual understanding weave together to develop mathematical proficiency.	

Old TEKS	Current TEKS (2012)	Supporting Information	Notes
(a) Introduction. (4) Problem solving, language and communication, connections within and outside mathematics, and formal and informal reasoning underlie all content areas in mathematics. Throughout mathematics in Kindergarten-Grade 2, students use these processes together with technology and other mathematical tools such as manipulative materials to develop conceptual understanding and solve meaningful problems as they do mathematics.	(a) Introduction. (2) The process standards describe ways in which students are expected to engage in the content. The placement of the process standards at the beginning of the knowledge and skills listed for each grade and course is intentional. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. The process standards are integrated at every grade level and course. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will 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. Students will select appropriate tools such as real objects, manipulatives, algorithms, paper and pencil, and technology and techniques such as mental math, estimation, number sense, generalization and abstraction to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, computer programs, and language. Students will use mathematical relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	This 2012 paragraph occurs second in the Revised TEKS (2012) instead of fourth as in the current TEKS. This highlights the continued emphasis on process skills that now continue from Kindergarten through high school mathematics. The language of this 2012 introductory paragraph is very similar to the Mathematical Process Standard strand within the Revised TEKS (2012). This 2012 introductory paragraph includes generalization and abstraction with the text from (1)(C). This 2012 introductory paragraph includes computer programs with the text from (1)(D). This 2012 introductory paragraph states, “students will use mathematical relationships to generate solutions and make connections and predictions” instead of the text from (1)(E).	
	(a) Introduction. (5) Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.	The State Board approved the retention of some “such as” statements within the TEKS where needed for clarification of content.	

	Old TEKS: Number, Operation, and Quantitative Reasoning	Current TEKS (2012)	Supporting Information	Notes
●+	2(1)(A) **Number, operation, and quantitative reasoning.** The student understands how place value is used to represent whole numbers. **The student is expected to use concrete models of hundreds, tens, and ones to represent a given whole number (up to 999) in various ways.**	2(2)(A) **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 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.**	Specificity has been added with rephrasing "Represent….in various ways" as "use concrete and pictorial models to compose and decompose numbers." Specificity has been added with "sum of so many thousands, hundreds, tens, and ones." It may include decomposing 787 into 7 hundreds, 8 tens, and 7 ones. It may also include decomposing 787 into the sum of 500, 200, 50, 30, and 7 to prepare for work with compatible numbers when adding whole numbers with fluency.	
			The number has increased from "up to 999" to "up to 1,200." Students are expected to use pictorial models in addition to concrete models.	
●+	2(1)(B) **Number, operation, and quantitative reasoning.** The student understands how place value is used to represent whole numbers. **The student is expected to use place value to read, write, and describe the value of whole numbers to 999.**	2(2)(B) **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 use standard, word, and expanded forms to represent numbers up to 1,200.**	The Revised SE 2012 has been made more concise by replacing "read, write and describe" with "represent." Specificity has been added for what is to be represented (read, written, and described): "standard, word, and expanded forms" in place of "place value."	
			The number has increased from "up to 999" to "up to 1,200."	
+		2(2)(C) **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 generate a number that is greater than or less than a given whole number up to 1,200.**	This revised SE extends revised SE K(2)(F) where students are expected to generate a number that is one more or one less than another number up to 20 and revised SE 1(5)(C) where students are expected to determine the number that is 10 more and 10 less than a given number up to 120.	

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	Old TEKS: Number, Operation, and Quantitative Reasoning	Current TEKS (2012)	Supporting Information	Notes
●+	2(1)(C) **Number, operation, and quantitative reasoning.** The student understands how place value is used to represent whole numbers. **The student is expected to use place value to compare and order whole numbers to 999 and record the comparisons using numbers and symbols (<, =, >).**	2(2)(D) **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 use place value to compare and order whole numbers to 1,200 using comparative language, numbers, and symbols (>, <, or =).**	Specificity has been added with the phrase "comparative language." If using the symbols and the current 2(13)(A) and 2(13)(B), students would have been using the comparative language associated with the symbols.	
		1,000 up to 1,200	The number has increased from "up to 999" to "up to 1,200."	
●+	2(2)(A) **Number, operation, and quantitative reasoning.** The student describes how fractions are used to name parts of whole objects or sets of objects. **The student is expected to use concrete models to represent and name fractional parts of a whole object (with denominators of 12 or less).**	2(3)(A) **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 partition objects into equal parts and name the parts, including halves, fourths and eighths, using words.**	Specificity has been added to the use of concrete models. Students are to partition objects in addition to using previously partitioned objects. Objects may be linear or area in form, such as strips, lines, regular polygons, or circles. Specificity has been added with the naming fractions with words rather than fraction notation of a/b. The words may include names such as "one-half" or "three-fourths." Students are not expected to note the relationship between the number of fourths that equal one-half, etc.	
		2(3)(B) **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 explain that the more fractional parts used to make a whole, the smaller the part; and the fewer the fractional parts, the larger the part.**	Specificity has been added regarding what students are expected to be able to explain when communicating about fractional parts of a whole object.	
		2(3)(C) **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 use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole.**	Counting may include a sequence of fractional names such as "one-fourth," "two-fourths," "three-fourths," "four-fourths," "five-fourths" or "one and one-fourth." Using a sentence such as "four-fourths equals one whole" would indicate recognition of how many parts it takes to equal one whole.	

	Old TEKS: Number, Operation, and Quantitative Reasoning	Current TEKS (2012)	Supporting Information	Notes
	2(2)(A) **Number, operation, and quantitative reasoning.** The student describes how fractions are used to name parts of whole objects or sets of objects. **The student is expected to use concrete models to represent and name fractional parts of a whole object (with denominators of 12 or less).**	2(3)(D) **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 identify examples and non-examples of halves, fourths, and eighths.**	Specificity has been added to illustrate how students might justify their thinking related to halves, fourths, and eighths.	
–	2(2)(B) **Number, operation, and quantitative reasoning.** The student describes how fractions are used to name parts of whole objects or sets of objects. **The student is expected to use concrete models to represent and name fractional parts of a set of objects (with denominators of 12 or less).**		The content of this SE was moved to grade 3: *Number and operations* 3(3)(E)	
–	2(2)(C) **Number, operation, and quantitative reasoning.** The student describes how fractions are used to name parts of whole objects or sets of objects. **The student is expected to use concrete models to determine if a fractional part of a whole is closer to 0, ½, or 1.**		This skill, when coupled with revised SE 3(1)(C), becomes part of the revised SE 3(3)(H).	
●+	2(3)(A) **Number, operation, and quantitative reasoning.** The student adds and subtracts whole numbers to solve problems. **The student is expected to recall and apply basic addition and subtraction facts (to 18).**	2(4)(A) **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 recall basic facts to add and subtract**	Students are expected to recall basic addition and subtraction facts. When coupled with revised SE, students may still be asked to apply these basic facts.	
		within 20 with automaticity.	The level of skill with "automaticity" requires quick recall of basic facts within 20 with speed and accuracy at an unconscious level. Automaticity is part of procedural fluency and, as such, should not be overly emphasized as an isolated skill. Automaticity with basic addition and subtraction facts allows students to explore richer applications of addition and subtraction. This is an increase from within 18.	

	Old TEKS: Number, Operation, and Quantitative Reasoning	Current TEKS (2012)	Supporting Information	Notes
●	2(3)(B) **Number, operation, and quantitative reasoning.** The student adds and subtracts whole numbers to solve problems. **The student is expected to model addition and subtraction of two-digit numbers with objects, pictures, words, and number.**	2(7)(C) **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 represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.**	When paired with revised SEs 2(1)(C) and 2(1)(D), the expectation is that students represent problems with objects, manipulatives, diagrams, language, and number. The action of solving with the revised SE 2(7)(C) aligns to the current 2(3)(C) as well.	
●+	2(3)(C) **Number, operation, and quantitative reasoning.** The student adds and subtracts whole numbers to solve problems. **The student is expected to select addition or subtraction to solve problems using two-digit numbers, whether or not regrouping is necessary.**	2(4)(B) **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 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.**	Specificity has been added for the number of values to be used when adding and subtracting with two-digit numbers. This specificity does not constrain the work with addition and subtraction in other SEs. Specificity has been added regarding strategies used to solve problems. Students are still expected to "regroup" as they apply mental strategies and algorithms based on knowledge of place value and property of operations.	
		2(4)(C) **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 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.**	The revised SE includes the addition and subtraction of 3 digit numbers. The constraint of "within 1,000" has been added. Specificity has been added as to the type of word problems students may be expected to solve. Problems may be one-step or multi-step. Paired with 2(4)(B), the problems in 2(4)(C) would be limited to addition of "up to four two-digit numbers" and subtraction of "two-digit numbers." Strategies may include properties of operations. For example, 432+241 may be thought of as (400+200)+(30+40)+(2+1). Specificity has been added regarding strategies used to solve problems. Fluency with this skill occurs in grade 3.	
		2(4)(D) **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 revised SE includes the addition and subtraction of 3 digit numbers. Students must be provided with a mathematical number sentence in order to generate and then solve their problem	

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		The student is expected to generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.	situations.
●	2(3)(D) **Number, operation, and quantitative reasoning.** The student adds and subtracts whole numbers to solve problems. **The student is expected to determine the value of a collection of coins up to one dollar.**	2(5)(A) **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 determine the value of a collection of coins up to one dollar.**	This SE remains unchanged.
●	2(3)(E) **Number, operation, and quantitative reasoning.** The student adds and subtracts whole numbers to solve problems. **The student is expected to describe how the cent symbol, dollar symbol, and the decimal point are used to name the value of a collection of coins.**	2(5)(B) **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 use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins.**	Students are expected to use the notation for money rather than describe their use.
●	2(4)(A) **Number, operation, and quantitative reasoning.** The student models multiplication and division. **The student is expected to model, create, and describe multiplication situations in which equivalent sets of concrete objects are joined.**	2(6)(A) **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 model, create, and describe contextual multiplication situations in which equivalent sets of concrete objects are joined.**	The phrase "multiplication situations" has been rephrased with "contextual multiplication situations." The situations are not purely mathematical situations.
●	2(4)(B) **Number, operation, and quantitative reasoning.** The student models multiplication and division. **The student is expected to model, create, and describe division situations in which a set of concrete objects is separated into equivalent sets.**	2(6)(B) **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 model, create, and describe contextual division situations in which a set of concrete objects is separated into equivalent sets.**	The phrase "division situations" has been rephrased with "contextual division situations." The situations are not purely mathematical situations.

	Old TEKS: Patterns, Relationships, and Algebraic Thinking	Current TEKS (2012)	Supporting Information	Notes
–	2(5)(A) **Patterns, relationships, and algebraic thinking.** The student uses patterns in numbers and operations. **The student is expected to find patterns in numbers such as in a 100s chart.**		This skill is not included within the Revised TEKS (2012). It is an instructional strategy that may be used to support the revised SE 2(7)(B).	
●+	2(5)(B) **Patterns, relationships, and algebraic thinking.** The student uses patterns in numbers and operations. **The student is expected to use patterns in place value to compare and order whole numbers through 999.**	2(2)(D) **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 use place value to compare and order whole numbers to 1,200 using comparative language, numbers, and symbols (>, <, or =).**	The phrase "patterns in place value" has been replaced with "place value." If using the symbols from the current SE 2(1)(C) and the current 2(13)(A) and 2(13)(B), students would have been using the comparative language associated with the symbols.	
			The number has increased from "up to 999" to "up to 1,200."	
		2(7)(B) **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 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.**	The revised SE provides specificity for the use of place value in generating numbers that may then be compared as "more" or "less." The revised SE provides a foundation for the revised SE 2(2)(D).	
–	2(5)(C) **Patterns, relationships, and algebraic thinking.** The student uses patterns in numbers and operations. **The student is expected to use patterns and relationships to develop strategies to remember basic addition and subtraction facts. Determine patterns in related addition and subtraction number sentences (including fact families) such as 8 + 9 = 17, 9 + 8 = 17, 17– 8 = 9, and 17 – 9 = 8.**		The content of this SE was moved to grade 1: *Number and operations* 1(3)(D) 1(3)(E) 1(3)(F)	

	Old TEKS: Patterns, Relationships, and Algebraic Thinking	Current TEKS (2012)	Supporting Information	Notes
–	2(6)(A) **Patterns, relationships, and algebraic thinking.** The student uses patterns to describe relationships and make predictions. **The student is expected to generate a list of paired numbers based on a real-life situation such as number of tricycles related to number of wheels.**		The content of this SE was moved to grade 3: *Algebraic reasoning* 3(5)(E)	
–	2(6)(B) **Patterns, relationships, and algebraic thinking.** The student uses patterns to describe relationships and make predictions. **The student is expected to identify patterns in a list of related number pairs based on a real-life situation and extend the list.**		The content of this SE was moved to grade 3: *Algebraic reasoning* 3(5)(E)	
–	2(6)(C) **Patterns, relationships, and algebraic thinking.** The student uses patterns to describe relationships and make predictions. **The student is expected to identify, describe, and extend repeating and additive patterns to make predictions and solve problems.**		Repeating patterns have been removed from the Revised TEKS (2012). Patterns that are additive in nature have moved to grade 5: *Algebraic reasoning* 5(4)(C) 5(4)(D)	
+		2(7)(A) **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 determine whether a number up to 40 is even or odd using pairings of objects to represent the number.**	The revised SE comes from the current grade 1 TEKS: *Patterns, relationships, and algebraic thinking* 1(5)(B). Specificity has been added with the "pairings of objects" rather than "patterns."	

	Old TEKS: Geometry and Spatial Reasoning	Current TEKS (2012)	Supporting Information	Notes
−	2(7)(A) **Geometry and spatial reasoning.** The student uses attributes to identify two- and three-dimensional geometric figures. The student compares and contrasts two-and three-dimensional geometric figures or both. **The student is expected to describe attributes (the number of vertices, faces, edges, sides) of two- and three-dimensional geometric figures such as circles, polygons, spheres, cones, cylinders, prisms, and pyramids, etc.**		The content of this SE was moved to grade 1: *Geometry and measurement* 1(6)(D) 1(6)(E)	
●+	2(7)(B) **Geometry and spatial reasoning.** The student uses attributes to identify two- and three-dimensional geometric figures. The student compares and contrasts two-and three-dimensional geometric figures or both. **The student is expected to use attributes to describe how 2 two-dimensional figures or 2 three-dimensional geometric figures are alike or different.**	2(8)(B) **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 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.**	Specificity regarding 3-d figures has been added. Formal geometric language includes terms such as "vertex," "edge," and "face." The revised SE has added depth with classification of solids. The comparison of similarities and differences supports classification and sorting.	
		2(8)(C) **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 classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices.**	Specificity regarding 2-d figures has been added. The revised SE has added depth with classification of polygons. The comparison of similarities and differences supports classification.	
●	2(7)(C) **Geometry and spatial reasoning.** The student uses attributes to identify two- and three-dimensional geometric figures. The student compares and contrasts two-and three-dimensional geometric figures or both. **The student is expected to cut two-dimensional geometric figures apart and identify the new geometric figures formed.**	2(8)(E) **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 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.**	The word "cut" has been replaced with the more appropriate word "decompose." An example of how a student might decompose a 2-D shape has been provided. In grade 2, the focus on decomposing shapes complements the work with fractional parts of a whole.	

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	Old TEKS: Geometry and Spatial Reasoning	Current TEKS (2012)	Supporting Information	Notes
●	2(8) **Geometry and spatial reasoning.** The student recognizes that a line can be used to represent a set of numbers and its properties. **The student is expected to use whole numbers to locate and name points on a number line.**	2(2)(E) **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 locate the position of a given whole number on an open number line.**	The use of an open number line has been specified. The current SE was been separated into two Revised SEs (2012).	
●		2(2)(F) **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 name the whole number that corresponds to a specific point on a number line.**	The current SE was been separated into two Revised SEs (2012).	
+		2(8)(A) **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 create two-dimensional shapes based on given attributes, including number of sides and vertices.**	The revised SE comes from the current grade 1 TEKS: *Geometry* 1(5)(D) Students are expected to create shapes based on given attributes rather than given concrete models.	
+		2(8)(D) **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 compose two-dimensional shapes and three-dimensional solids with given properties or attributes.**	The revised SE comes from the current grade 1 TEKS: *Geometry* 1(6)(D) Students are expected to compose 2-d shapes and 3-d solids such as building a rectangle out of unit squares or building a rectangular prism out of unit cubes. Students are expected to compose given properties.	

	Old TEKS: Measurement	Current TEKS (2012)	Supporting Information	Notes
●+	2(9)(A) **Measurement.** The student directly compares the attributes of length, area, weight/mass, and capacity, and uses comparative language to solve problems and answer questions. The student selects and uses nonstandard units to describe length, area, capacity, and weight/mass. The student recognizes and uses models that approximate standard units (from both SI, also known as metric, and customary systems) of length, weight/mass, capacity, and time. **The student is expected to identify concrete models that approximate standard units of length and use them to measure length.**	2(9)(A) **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 find the length of objects using concrete models for standard units of length.**	Greater specificity has been added with the revised SE by breaking the current SE 2(9)(A) into its component parts. The concrete models should represent rather than approximate a standard unit of length such as the edges of inch tiles or centimeter cubes.	
		2(9)(B) **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 describe the inverse relationship between the size of the unit and the number of units needed to equal the length of an object.**	Greater specificity has been added with the revised SE by breaking the current SE 2(9)(A) into its component parts. A student is expected to provide a description such as "the longer the unit, the fewer needed and the shorter the unit, the more needed to measure a length."	
		2(9)(C) **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 represent whole numbers as distances from any given location on a number line.**	The revised SE has added number lines as a representation of distance (length).	
		2(9)(D) **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 determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes.**	Greater specificity has been added with the revised SE by breaking the current SE 2(9)(A) into its component parts. Students are expected to use standard units of length and measure to the nearest whole unit such as an inch or a foot.	
		2(9)(E) **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 determine a solution to a problem involving length, including estimating lengths.**	Greater specificity has been added with the revised SE by breaking the current SE 2(9)(A) into its component parts.	

	Old TEKS: Measurement	Current TEKS (2012)	Supporting Information	Notes
●	2(9)(B) **Measurement.** The student directly compares the attributes of length, area, weight/mass, and capacity, and uses comparative language to solve problems and answer questions. The student selects and uses nonstandard units to describe length, area, capacity, and weight/mass. The student recognizes and uses models that approximate standard units (from both SI, also known as metric, and customary systems) of length, weight/mass, capacity, and time. **The student is expected to select a non-standard unit of measure such as square tiles to determine the area of a two-dimensional surface.**	2(9)(F) **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 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.**	Specificity has been added as to how students are expected to use square units to determine the area of a 2-d figure. The 2-d figure has been constrained to rectangles, which includes squares. The concrete models should be square units, and the measurement should be described using square units such as "24 square units."	
–	2(9)(C) **Measurement.** The student directly compares the attributes of length, area, weight/mass, and capacity, and uses comparative language to solve problems and answer questions. The student selects and uses nonstandard units to describe length, area, capacity, and weight/mass. The student recognizes and uses models that approximate standard units (from both SI, also known as metric, and customary systems) of length, weight/mass, capacity, and time. **The student is expected to select a non-standard unit of measure such as a bathroom cup or a jar to determine the capacity of a given container.**		This skill is not included within the Revised TEKS (2012). This skill may support instruction related to Kindergarten: *Geometry and measurement* K(7)(A)	
–	2(9)(D) **Measurement.** The student directly compares the attributes of length, area, weight/mass, and capacity, and uses comparative language to solve problems and answer questions. The student selects and uses nonstandard units to describe length, area, capacity, and weight/mass. The student recognizes and uses models that approximate standard units (from both SI, also known as metric, and customary systems) of length, weight/mass, capacity, and time. **The student is expected to select a non-standard unit of measure such as beans or marbles to determine the weight/mass of a given object.**		This skill is not included within the Revised TEKS (2012). This skill may support instruction related to Kindergarten: *Geometry and measurement* K(7)(A)	

	Old TEKS: Measurement	Current TEKS (2012)	Supporting Information	Notes
−	2(10)(A) **Measurement.** The student uses standard tools to estimate and measure time and temperature (in degrees Fahrenheit). **The student is expected to read a thermometer to gather data.**		This skill is not included within the Revised TEKS (2012).	
●+	2(10)(B) **Measurement.** The student uses standard tools to estimate and measure time and temperature (in degrees Fahrenheit). **The student is expected to read and write times shown on analog and digital clocks using five-minute increments.**	2(9)(G) **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 read and write time to the nearest one-minute increment using analog and digital clocks and distinguish between a.m. and p.m.**	Specificity has been added with distinguishing between a.m. and p.m. Reading and writing time now takes place to the nearest minute rather than five-minute increment.	
−	2(10)(C) **Measurement.** The student uses standard tools to estimate and measure time and temperature (in degrees Fahrenheit). **The student is expected to describe activities that take approximately one second, one minute, and one hour.**		This skill is not included within the Revised TEKS (2012).	

	Old TEKS: Probability and Statistics	Current TEKS (2012)	Supporting Information	Notes
●	2(11)(A) **Probability and statistics.** The student organizes data to make it useful for interpreting information. **The student is expected to construct picture graphs and bar-type graphs.**	2(10)(B) **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 organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one**	The number of categories has been constrained to four.	
		or more.	Intervals may be one or more.	
		2(10)(A) **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 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.**	Specificity has been added in how students are expected to be able to explain their construction of a picture graph (pictograph) or a bar-type graph (bar graph).	
●+	2(11)(B) **Probability and statistics.** The student organizes data to make it useful for interpreting information. **The student is expected to draw conclusions and answer questions based on picture graphs and bar-type graphs.**	2(10)(D) **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 draw conclusions and make predictions from information in a graph.**	Specificity has been added regarding the types of questions. The questions for this SE will focus on making predictions. Pairing this SE with revised SEs 2(10)(A) and 2(10)(B)shows that the graphs are pictographs and bar graphs.	
		2(10)(C) **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 write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one.**	Specificity has been added regarding the types of questions students are expected to answer. Specificity has been added regarding intervals on the graphs. Students are now expected to write problems involving addition or subtraction using data represented within the stated graphs.	
–	2(11)(C) **Probability and statistics.** The student organizes data to make it useful for interpreting information. **The student is expected to use data to describe events as more likely or less likely such as drawing a certain color crayon from a bag of seven red crayons and three green crayons.**		This skill is not included within the Revised TEKS (2012).	

<table>
<tr><th></th><th>Old TEKS: Underlying Processes and Mathematical Tools</th><th>Current TEKS (2012)</th><th>Supporting Information</th><th>Notes</th></tr>
<tr><td>●</td><td>2(12)(A) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.

The student is expected to identify the mathematics in everyday situations.</td><td>2(1)(A) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.

The student is expected to apply mathematics to problems arising in everyday life, society, and the workplace.</td><td>The focus has shifted to application.

The opportunities for application have been consolidated into three areas: everyday life, society, and the workplace.

The revised SE, when tagged to a content SE, allows for increased rigor through connections outside the discipline.</td><td></td></tr>
<tr><td>●</td><td>2(12)(B) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.

The student is expected to solve problems with guidance that incorporates the processes of understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</td><td rowspan="2">2(1)(B) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.

The student is expected to 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.</td><td rowspan="2">The revised SE restates and condenses 2(12)(B) and 2(12)(C).

Problem-Solving Model<table><tr><th>Current TEKS</th><th>Revised TEKS (2012)</th></tr><tr><td>Understanding the problem</td><td>Analyzing given information</td></tr><tr><td>Making a plan</td><td>Formulating a plan or strategy</td></tr><tr><td>Carrying out the plan</td><td>Determining a solution</td></tr><tr><td></td><td>Justifying the solution</td></tr><tr><td>Evaluating the solution for reasonableness</td><td>Evaluating the problem-solving process and the reasonableness of the solution</td></tr></table></td><td rowspan="2"></td></tr>
<tr><td>●</td><td>2(12)(C) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.

The student is expected to select or develop an appropriate problem-solving plan or strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem.</td></tr>
<tr><td>●</td><td>2(12)(D) Underlying processes and mathematical tools. The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.

The student is expected to use tools such as real objects, manipulatives, and technology to solve problems.</td><td>2(1)(C) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding.

The student is expected to 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.</td><td>The phrase “as appropriate” has been inserted into the Revised TEKS (2012). This implies that students are assessing which tool to apply rather than trying only one or all.

“Paper and pencil” is now included in the list of tools that still includes real objects, manipulatives, and technology.</td><td></td></tr>
</table>

	Old TEKS: Underlying Processes and Mathematical Tools	Current TEKS (2012)	Supporting Information	Notes
●	2(13)(A) **Underlying processes and mathematical tools.** The student communicates about Grade 2 mathematics using informal language. **The student is expected to explain and record observations using objects, words, pictures, numbers, and technology.**	2(1)(D) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.**	Communication has expanded to include reasoning and the implications of mathematical ideas and reasoning. The list of representations is now summarized with "multiple representations" with specificity added for symbols and diagrams.	
●	2(13)(B) **Underlying processes and mathematical tools.** The student communicates about Grade 2 mathematics using informal language. **The student is expected to relate informal language to mathematical language and symbols.**	2(1)(E) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to create and use representations to organize, record, and communicate mathematical ideas.**	The use of representations is extended to include organizing and recording mathematical ideas in addition to communicating. As students use and create representations, it is implied that they will evaluate the effectiveness of their representations to ensure that they are communicating mathematical ideas clearly. Students are expected to use appropriate mathematical vocabulary and phrasing when communicating mathematical ideas.	
●	2(14) **Underlying processes and mathematical tools.** The student uses logical reasoning. **The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.**	2(1)(F) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to analyze mathematical relationships to connect and communicate mathematical ideas.**	The Revised TEKS (2012) extends the current TEKS to allow for additional means to analyze relationships and to form connections with mathematical ideas past conjecturing and sets of examples and non-examples. Students are still expected to form conjectures based on patterns or sets of examples and non-examples.	
		2(1)(G) **Mathematical process standards.** The student uses mathematical processes to acquire and demonstrate mathematical understanding. **The student is expected to display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communications.**	The Revised TEKS (2012) clarifies "validates his/her conclusions" with displays, explanations, and justifications. The conclusions are expected to focus on mathematical ideas and arguments. Displays could include diagrams, visual aids, written work, etc. The intention is make one's work visible to others so that explanations and justifications may be shared in written or oral form. Precise mathematical language is expected. For example, students would use "vertex" instead of "corner" when referring to the point at which two edges intersect on a polygon.	

Old TEKS	Current TEKS (2012)	Supporting Information	Notes
+	2(11)(A) **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 calculate how money saved can accumulate into a larger amount over time.**		
+	2(11)(B) **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 explain that saving is an alternative to spending.**		
+	2(11)(C) **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 distinguish between a deposit and a withdrawal.**		
+	2(11)(D) **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 identify examples of borrowing and distinguish between responsible and irresponsible borrowing.**		
+	2(11)(E) **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 identify examples of lending and use concepts of benefits and costs to evaluate lending decisions.**		
+	2(11)(F) **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 differentiate between producers and consumers and calculate the cost to produce a simple item.**	Simple items may include items such as a shirt, a pitcher of lemonade, or a class art project.	