Introduction to the
Revised Mathematics TEKS

SIDE-BY-SIDE TEKS COMPARISON
KINDERGARTEN

TEA™
TEXAS EDUCATION AGENCY

Current TEKS	Revised TEKS (2012)	Supporting Information	Notes

(a) Introduction.
  (1) Within a well-balanced mathematics curriculum, the primary focal points at Kindergarten are developing whole-number concepts and using patterns and sorting to explore number, data, and shape.
	(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 Kindergarten are understanding counting and cardinality, understanding addition as joining and subtraction as separating, and comparing objects by measureable attributes.
	    (A) Students develop number and operations through several fundamental concepts. Students know number names and the counting sequence. Counting and cardinality lay a solid foundation for number. Students apply the principles of counting to make the connection between numbers and quantities.
	    (B) Students use meanings of numbers to create strategies for solving problems and responding to practical situations involving addition and subtraction.
	    (C) Students identify characteristics of objects that can be measured and directly compare objects according to these measureable attributes.
		The 2012 paragraph that highlights more specifics about grade K 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 1 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.	

Current TEKS	Revised 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 Kindergarten 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.	

Current TEKS	Revised 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 standards 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.	

Current TEKS: Number, operation, and quantitative reasoning	Revised TEKS (2012)	Supporting Information	Notes
● K(1)(A) **Number, operation, and quantitative reasoning**. The student uses numbers to name quantities. **The student is expected to use one-to-one correspondence and language such as more than, same number as, or two less than to describe relative sizes of sets of concrete objects.**	K(2)(G) **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 compare sets of objects up to at least 20 in each set using comparative language.**	Comparative language includes "more than," "same number as," and "two less than."	
● K(1)(B) **Number, operation, and quantitative reasoning**. The student uses numbers to name quantities. **The student is expected to use sets of concrete objects to represent quantities given in verbal or written form (through 20).**	K(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. **The student is expected to read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures.**	The current SEs K(1)(B) and K(1)(C) have been combined to form K(2)(B).	
● K(1)(C) **Number, operation, and quantitative reasoning**. The student uses numbers to name quantities. **The student is expected to use numbers to describe how many objects are in a set (through 20) using verbal and symbolic descriptions.**		**Students are expected to read, write, and represent whole numbers without objects.**	
▬ K(2)(A) **Number, operation, and quantitative reasoning.** The student describes order of events or objects. **The student is expected to use language such as before or after to describe relative position in a sequence of events or objects.**		This skill is not included within the Revised TEKS (2012).	
▬ K(2)(B) **Number, operation, and quantitative reasoning.** The student describes order of events or objects. **The student is expected to name the ordinal positions in a sequence such as first, second, third, etc.**		This skill is not included within the Revised TEKS (2012).	
▬ K(3)(A) **Number, operation, and quantitative reasoning.** The student recognizes that there are quantities less than a whole. **The student is expected to share a whole by separating it into two equal parts.**		The content of this SE has moved to grade 2: *Number and operations* 2(3)(A)	

	Current TEKS: Number, operation, and quantitative reasoning	Revised TEKS (2012)	Supporting Information	Notes
—	K(3)(B) **Number, operation, and quantitative reasoning.** The student recognizes that there are quantities less than a whole. **The student is expected to explain why a given part is half of the whole.**		The content of this SE was moved to grade 2: *Number and operations* 2(3)(A)	
●+	K(4) **Number, operation, and quantitative reasoning.** The student models addition (joining) and subtraction (separating). **The student is expected to model and create addition and subtraction problems in real situations with concrete objects.**	K(3)(A) **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 model the action of joining to represent addition and the action of separating to represent subtraction.**	Specificity as been added for modeling. Creating problems has moved to grade 1: *Number and operations* 1(3)(F)	
		K(3)(B) **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 solve word problems using objects and drawings to find sums up to 10 and differences within 10.**	Specificity has been added with "solve word problems." Modeling includes the result from joining to determine sums and separating to determine differences. When paired with revised SE K(1)(A), students solve problems related to real situations. Specificity has been added for sums and differences. Students may use drawings to solve problems.	
		K(3)(C) **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 explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences.**	Specificity has been added regarding the size of the sum or the original amount when subtracting as within 10. By pairing the current SE with the current K(1)(E), students can expected to explain and record observations which may include strategies. Students are expected to explain their thinking using spoken words, pictorial models, and number sentences.	

Current TEKS: Number, operation, and quantitative reasoning	Revised TEKS (2012)	Supporting Information	Notes
+	K(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. **The student is expected to 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.**	Students are expected to form connections between counting with a set of objects and the number that describes a set of objects.	
+	K(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. **The student is expected to recognize instantly the quantity of a small group of objects in organized and random arrangements.**	Organized arrangements include ten frames and the arrangements of dots on random-number generators. The number of items in a group should be ten or fewer.	
+	K(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. **The student is expected to 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.**	This revised SE builds to revised SE K(2)(F). When working with concrete and pictorial models, students are representing a given number up to 20.	
+	K(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. **The student is expected to generate a number that is one more than or one less than another number up to at least 20.**	This revised SE builds to revised SE 1(2)(D) and 2(2)(C) where students are expected to generate a number that is more than or less than a given whole number. When working without concrete and pictorial models, students are generating a given number up to at least 20.	

Current TEKS: Number, operation, and quantitative reasoning	Revised TEKS (2012)	Supporting Information	Notes
+	K(2)(H) **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 use comparative language to describe two numbers up to 20 presented as written numerals.**	Comparative language includes "more than," "greater than," "less than," or "equal to."	
+	K(2)(I) **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 compose and decompose numbers up to 10 with objects and pictures.**	Students may use two or more groups of objects to compose and decompose numbers up to 10. For example, the objects may be arranged to show a group of 2, a group of 3, and a group of 5 to make 10. Students may compose and decompose in a variety of ways. For example, the objects may be arranged to show a group of 2, a group of 3, and a group of 5 to make 10 or a group of 3, a group of 3, and a group of 4 to make 10.	
+	K(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 identify U.S. coins by name, including pennies, nickels, dimes, and quarters.**	This builds to revised SE 1(4)(B) where students are expected to write a number with the cent symbol to describe the value of the coin.	

Current TEKS: Patterns, relationships, and algebraic thinking	Revised TEKS (2012)	Supporting Information	Notes
K(5) Patterns, relationships, and algebraic thinking. The student identifies, extends, and creates patterns. **—** **The student is expected to identify, extend, and create patterns of sounds, physical movement, and concrete objects.**		This skill is not included within the Revised TEKS (2012).	
K(6)(A) Patterns, relationships, and algebraic thinking. The student uses patterns to make predictions. **—** **The student is expected to use patterns to predict what comes next, including cause-and-effect relationships.**		This skill is not included within the Revised TEKS (2012).	
●+ K(6)(B) **Patterns, relationships, and algebraic thinking.** The student uses patterns to make predictions. **The student is expected to count by ones to 100.**	K(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. **The student is expected to count forward and backward to at least 20 with and without objects.**	The lower limit for counting is 20 with and without objects. Students are expected to count by ones, starting at any number. Students are expected to count backward with and without objects.	
	K(5) **Algebraic reasoning.** The student applies mathematical process standards to identify the pattern in the number word list. **The student is expected to recite numbers up to at least 100 by ones and tens beginning with any given number.**	Reciting numbers should be developed through counting so that students have meaning behind the recitation. This recitation builds automaticity when counting by ones or by tens. Recitation includes reciting by tens. The given number, when reciting by tens, should be a multiple of ten.	

	Current TEKS: Geometry and spatial reasoning	Revised TEKS (2012)	Supporting Information	Notes
▬	K(7)(A) **Geometry and spatial reasoning.** The student describes the relative positions of objects. **The student is expected to describe one object in relation to another using informal language such as over, under, above, and below.**		This skill is not included within the Revised TEKS (2012).	
▬	K(7)(B) **Geometry and spatial reasoning.** The student describes the relative positions of objects. **The student is expected to place an object in a specified position.**		This skill is not included within the Revised TEKS (2012).	
●+	K(8)(A) **Geometry and spatial reasoning.** The student uses attributes to determine how objects are alike and different. **The student is expected to describe and identify an object by its attributes using informal language.**	K(6)(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 identify attributes of two-dimensional shapes using informal and formal geometric language interchangeably.**	Specificity has been provided for objects. They should be two-dimensional shapes. Students are expected to use formal geometric language such as "vertex" or "vertices" for corners and "side" for edge.	
●	K(8)(B) **Geometry and spatial reasoning.** The student uses attributes to determine how objects are alike and different. **The student is expected to compare two objects based on their attributes.**	K(6)(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 classify and sort a variety of regular and irregular two- and three-dimensional figures regardless of orientation or size.**	Specificity regarding the figures has been provided. They may be regular or irregular. Orientation and size should not be attributes which students use to sort and classify figures as these are not related to attributes of 2-d and 3-d figures. Comparing two objects based on their attributes becomes subsumed within the sorting of a variety of figures. For example, students may sort a collection of 2-d and 3-d figures based on dimension. They might compare a triangle and a triangular pyramid while sorting. The revised SE rephrases "describe how the objects are sorted" with "classify."	
●	K(8)(C) **Geometry and spatial reasoning.** The student uses attributes to determine how objects are alike and different. **The student is expected to sort a variety of objects including two- and three-dimensional geometric figures according to their attributes and describe how the objects are sorted.**			

Current TEKS: Geometry and spatial reasoning	Revised TEKS (2012)	Supporting Information	Notes
●+ K(9)(A) **Geometry and spatial reasoning.** The student recognizes attributes of two- and three-dimensional geometric figures. **The student is expected to describe and compare the attributes of real-life objects such as balls, boxes, cans, and cones or models of three-dimensional geometric figures.**	K(6)(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 identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world.**	The revised SE rephrases "describe and compare" with "identify." Students are expected to use formal mathematical vocabulary such as cylinder, cone, sphere, and cube when identifying solids.	
● K(9)(B) **Geometry and spatial reasoning.** The student recognizes attributes of two- and three-dimensional geometric figures. **The student is expected to recognize shapes in real-life three-dimensional geometric figures or models of three-dimensional geometric figures.**	K(6)(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 identify two-dimensional components of three-dimensional objects.**	The revised SE rephrases "recognize shapes" with "identify two-dimensional components." To align with revised SE, the two-dimensional components include circles, triangles, rectangles, and squares. For example, the face of a tissue box is a rectangle.	
● K(9)(C) **Geometry and spatial reasoning.** The student recognizes attributes of two- and three-dimensional geometric figures. **The student is expected to describe, identify, and compare circles, triangles, rectangles, and squares (a special type of rectangle).**	K(6)(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 identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles.**	Students identify two-dimensional shapes based on attributes. When paired with revised SE K(1)(D), K(1)(F), and K(1)(G), the expectation is that students may describe and compare the identified figures to just their identifications.	
+	K(6)(F) **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 using a variety of materials and drawings.**		

	Current TEKS: Measurement	Revised TEKS (2012)	Supporting Information	Notes
◐	K(10)(A) **Measurement.** The student directly compares the attributes of length, area, weight/mass, capacity, and/or relative temperature. The student uses comparative language to solve problems and answer questions. **The student is expected to compare and order two or three concrete objects according to length (longer/shorter than, or the same).**	K(7)(B) **Geometry and measurement.** The student applies mathematical process standards to directly compare measureable attributes. **The student is expected to compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.**	The current SEs K(10)(A), K(10)(C), and K(10)(D) have been summarized with the revised SE. Common measurable attributes include length. To describe a difference in capacity, students may use language such as "longer," "shorter," or "the same." Students are not expected to compare three objects according to length. Students are not expected to order objects according to length.	
▬	K(10)(B) **Measurement.** The student directly compares the attributes of length, area, weight/mass, capacity, and/or relative temperature. The student uses comparative language to solve problems and answer questions. **The student is expected to compare the areas of two flat surfaces of two-dimensional figures (covers more, covers less, or covers the same).**		Concepts related to area begin in grade 2: *Geometry and measurement* 2(9)(F)	
●	K(10)(C) **Measurement.** The student directly compares the attributes of length, area, weight/mass, capacity, and/or relative temperature. The student uses comparative language to solve problems and answer questions. **The student is expected to compare two containers according to capacity (holds more, holds less, or holds the same).**	K(7)(B) **Geometry and measurement.** The student applies mathematical process standards to directly compare measureable attributes. **The student is expected to compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.**	The current SEs K(10)(A), K(10)(C), and K(10)(D) have been summarized with the revised SE. Common measurable attributes include capacity. To describe a difference in capacity, students may use language such as "holds more," "holds less," or "holds the same."	
◐	K(10)(D) **Measurement.** The student directly compares the attributes of length, area, weight/mass, capacity, and/or relative temperature. The student uses comparative language to solve problems and answer questions. **The student is expected to compare two objects according to weight/mass (heavier than, lighter than or equal to).**	K(7)(B) **Geometry and measurement.** The student applies mathematical process standards to directly compare measureable attributes. **The student is expected to compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.**	The current SEs K(10)(A), K(10)(C), and K(10)(D) have been summarized with the revised SE. Common measurable attributes include weight. To describe a difference in weight, students may use language such as "heavier than," "lighter than," or "equal to." Mass is not included within the Revised TEKS (2012).	

Current TEKS: Measurement	Revised TEKS (2012)	Supporting Information	Notes
— K(10)(E) **Measurement.** The student directly compares the attributes of length, area, weight/mass, capacity, and/or relative temperature. The student uses comparative language to solve problems and answer questions. **The student is expected to compare situations or objects according to relative temperature (hotter/colder than, or the same as).**		This skill is not included within the Revised TEKS (2012).	
— K(11)(A) **Measurement.** The student uses time to describe, compare, and order events and situations. **The student is expected to compare events according to duration such as more time than or less time than.**		This skill is not included within the Revised TEKS (2012).	
— K(11)(B) **Measurement.** The student uses time to describe, compare, and order events and situations. **The student is expected to sequence events (up to three).**		This skill is not included within the Revised TEKS (2012).	
— K(11)(C) **Measurement.** The student uses time to describe, compare, and order events and situations. **The student is expected to read a calendar using days, weeks, and months.**		This skill is not included within the Revised TEKS (2012).	
+	K(7)(A) **Geometry and measurement.** The student applies mathematical process standards to directly compare measureable attributes. **The student is expected to give an example of a measurable attribute of a given object, including length, capacity, and weight.**	While students may give many examples of measurable attributes, the attributes of length, capacity, and weight build vertically to measurement in later grades.	

Current TEKS: Probability and statistics	Revised TEKS (2012)	Supporting Information	Notes
● K(12)(A) **Probability and statistics.** The student constructs and uses graphs of real objects or pictures to answer questions. **The student is expected to construct graphs using real objects or pictures in order to answer questions.**	K(8)(A) **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 collect, sort, and organize data into two or three categories.**	Specificity for constructing graphs has been added with "collect, sort, and organize data." Data are to be sorted into two or three categories. To build to revised SE 1(8)(A), data may be organized using T-charts and tally marks. The data collection takes place in response to a question.	
	K(8)(B) **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 use data to create real-object and picture graphs.**	The real-object graphs and pictures graphs builds to revised SE 1(8)(B) where students use data to create picture and bar-type graphs. Arrangements of objects and pictures should be linear.	
● K(12)(B) **Probability and statistics.** The student constructs and uses graphs of real objects or pictures to answer questions. **The student is expected to use information from a graph of real objects or pictures in order to answer questions.**	K(8)(C) **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 draw conclusions from real-object and picture graphs.**	Students should draw conclusions related to the question that led to the data collection. Students may also draw conclusions about the data related to number concepts and operations in the Number and operations strand for grade K.	

Current TEKS: Underlying processes and mathematical tools	Revised TEKS (2012)	Supporting Information	Notes
● K(13)(A) **Underlying processes and mathematical tools.** The student applies Kindergarten mathematics to solve problems connected to everyday experiences and activities in and outside of school. **The student is expected to identify mathematics in everyday situations.**	K(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.**	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.	
● K(13)(B) **Underlying processes and mathematical tools.** The student applies Kindergarten 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.**	K(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.**	The revised SE restates and condenses K(13)(B) and K(13)(C).	
● K(13)(C) **Underlying processes and mathematical tools**. The student applies Kindergarten 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 strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem.**		**Problem-Solving Model** | **Current TEKS**	**Revised TEKS (2012)**
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Understanding the problem	Analyzing given information
Making a plan	Formulating a plan or strategy
Carrying out the plan	Determining a solution
	Justifying the solution
Evaluating the solution for reasonableness	Evaluating the problem-solving process and the reasonableness of the solution		
● K(13)(D) **Underlying processes and mathematical tools.** The student applies Kindergarten 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.**	K(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.**	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.	

Current TEKS: Underlying processes and mathematical tools	Revised TEKS (2012)	Supporting Information	Notes
● K(14)(A) **Underlying processes and mathematical tools.** The student communicates about Kindergarten mathematics using informal language. **The student is expected to communicate mathematical ideas using objects, words, pictures, numbers, and technology.**	K(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.	
● K(14)(B) **Underlying processes and mathematical tools.** The student communicates about Kindergarten mathematics using informal language. **The student is expected to relate everyday language to mathematical language and symbols.**	K(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.	
● K(15) **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.**	K(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.	
	K(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.	

Current TEKS: Financial Literacy	Revised TEKS (2012)	Supporting Information	Notes
+	K(9)(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 identify ways to earn income.**		
+	K(9)(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 differentiate between money received as income and money received as gifts.**		
+	K(9)(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 list simple skills required for jobs.**		
+	K(9)(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 distinguish between wants and needs and identify income as a source to meet one's wants and needs.**		