TTUISD - TEKS Tracker

Author _____ Submission Date _____/_____/_____

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TTU Course: MATH 2B (v.3.0) Second Semester

TEKS: §111.14. Grade 2

TEKS Requirement (Elementary)		Sem. B	Lesson & Assignment Number	Textbook Chapter/Page #	Bloom's Taxonomy
§111.14. Mathematics, Grade 2.					
(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.					
(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.					
(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.					
(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.					
(b) Knowledge and skills.					
(1) **Number, operation, and quantitative reasoning.** The student understands how place value is used to represent whole numbers. The student is expected to:					Understand
(A) use concrete models of hundreds, tens, and ones to represent a given whole number (up to 999) in various ways;		**B**	10; 10; 10;	1/321-322; 2/323-324; 5/331-332	Apply
(B) use place value to read, write, and describe the value of whole numbers to 999; and		**B**	10; 10; 10; 10;	1/321-322; 2/323-324; 3/325-326; 5/331-332;	Apply
(C) use place value to compare and order whole numbers to 999 and record the comparisons using numbers and symbols (<, =, >).		**B**	10; 10	6/335-336; 7/337-338	Apply
(2) **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:					Understand
(A) use concrete models to represent and name fractional parts of a whole object (with denominators of 12 or less);		**B**	9; 9; 9; 9	1/cg; 1/291-292; 2/293-294; 4/297-298;	Apply
(B) use concrete models to represent and name fractional parts of a set of objects (with denominators of 12 or less); and		**B**	9; 9	6/305-306; 7/307-308	Apply
(C) use concrete models to determine if a fractional part of a whole is closer to 0, ½, or 1.		**B**	9	5/301-302	Apply
(3) **Number, operation, and quantitative reasoning.** The student adds and subtracts whole numbers to solve problems. The student is expected to:					Apply
(A) recall and apply basic addition and subtraction facts (to 18);					Apply
(B) model addition and subtraction of two-digit numbers with objects, pictures, words, and numbers;					Apply
(C) select addition or subtraction to solve problems using two-digit numbers, whether or not regrouping is necessary;		**B**	13	6/431-432	Apply
(D) determine the value of a collection of coins up to one dollar; and					Understand

(E) describe how the cent symbol, dollar symbol, and the decimal point are used to name the value of a collection of coins.					Understand
(4) **Number, operation, and quantitative reasoning.** The student models multiplication and division. The student is expected to:					Apply
(A) model, create, and describe multiplication situations in which equivalent sets of concrete objects are joined; and		**B**	12; 14; 14; 14; 14;	2/389-390; 1/447-448; 2/449-450; 4/453-454; 5/455-456	Apply
(B) model, create, and describe division situations in which a set of concrete objects is separated into equivalent sets.		**B**	14; 14	6/461-462; 7/463-464	Apply
(5) **Patterns, relationships, and algebraic thinking.** The student uses patterns in numbers and operations. The student is expected to:					Apply
(A) find patterns in numbers such as in a 100s chart;					Apply
(B) use patterns in place value to compare and order whole numbers through 999; and		**B**	10; 10; 10	1/cg; 6/335-336; 7/337-338	Apply
(C) 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.					Apply
(6) **Patterns, relationships, and algebraic thinking.** The student uses patterns to describe relationships and make predictions. The student is expected to:					Apply
(A) generate a list of paired numbers based on a real-life situation such as number of tricycles related to number of wheels;					Evaluate
(B) identify patterns in a list of related number pairs based on a real-life situation and extend the list; and					Evaluate
(C) identify, describe, and extend repeating and additive patterns to make predictions and solve problems.					Create
(7) **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:					Evaluate
(A) 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.;		**B**	11; 11; 11; 11	1/.351-352; 2/353-354; 3/357-358; 5/363-364	Evaluate
(B) use attributes to describe how 2 two-dimensional figures or 2 three-dimensional geometric figures are alike or different; and		**B**	11; 11; 11;	3/357-358; 5/363-364; 6/365-366	Evaluate
(C) cut two-dimensional geometric figures apart and identify the new geometric figures formed.		**B**	11;	7/367-370	Evaluate
(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.		**B**	11; 11	9/373-374; 10/375-376	Apply
(9) **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:		**B**	12; 12; 12; 13; 13; 13; 13	1/387-388; 4/395-396; 6/401-402; 2/419-420; 4/425-426; 6/431-432; 7/433-434	Evaluate
(A) identify concrete models that approximate standard units of length and use them to measure length;		**B**	12; 12;	2/389-390; 5/399-400;	Analyze
(B) select a non-standard unit of measure such as square tiles to determine the area of a two-dimensional surface;		**B**	12	7/403-404	Analyze
(C) select a non-standard unit of measure such as a bathroom cup or a jar to determine the capacity of a given container; and		**B**	13	1/417-418	Analyze
(D) select a non-standard unit of measure such as beans or marbles to determine the weight/mass of a given object.		**B**	13	5/429-430	Analyze
(10) **Measurement.** The student uses standard tools to estimate and measure time and temperature (in degrees Fahrenheit). The student is expected to:					Apply
(A) read a thermometer to gather data;					Apply
(B) read and write times shown on analog and digital clocks using five-minute increments; and					Apply
(C) describe activities that take approximately one second, one minute, and one hour.					Understand
(11) **Probability and statistics.** The student organizes data to make it useful for interpreting information. The student is expected to:					Create
(A) construct picture graphs and bar-type graphs;					Create
(B) draw conclusions and answer questions based on picture graphs and bar-type graphs; and					Evaluate
(C) 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.					Analyze
(12) **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:					Apply

(A) identify the mathematics in everyday situations;		B	all lessons	all lessons	Understand
(B) 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;		B	all lessons	all lessons	Evaluate
(C) 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; and		B	all problem solving lessons	all problem solving lessons	Create
(D) use tools such as real objects, manipulatives, and technology to solve problems.		B	all lessons	all lessons	Apply
(13) **Underlying processes and mathematical tools.** The student communicates about Grade 2 mathematics using informal language. The student is expected to:					Create
(A) explain and record observations using objects, words, pictures, numbers, and technology; and		B	all lessons	all lessons	Create
(B) relate informal language to mathematical language and symbols.		B	all lessons	all lessons	Create
(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.		B	all lessons	all lessons	Evaluate
Source: The provisions of this §111.14 adopted to be effective September 1, 1998, 22 TexReg 7623; amended to be effective August 1, 2006, 30 TexReg 7471.					