

**To the Parent(s):**

After registration is complete and the proctor has been approved, your child may take the Kindergarten Mathematics Credit by Examination to assess mastery over the Texas Essential Knowledge and Skills.

**WHAT TO BRING**

- several sharpened No. 2 pencils

**ABOUT THE EXAM**

The examination for Kindergarten Mathematics consists of 50 questions and is based on the Texas Essential Knowledge and Skills (TEKS) for this subject. The full list of TEKS is included at the end of this document (it is also available online at the Texas Education Agency website, <http://www.tea.state.tx.us/>). The TEKS outline specific topics covered in the exam, as well as more general areas of knowledge and levels of critical thinking. Use the TEKS to focus your study in preparation for the exam. TEKS covered in this semester are indicated by a checkmark; the exam will focus on the checkmarked TEKS, but may touch on any of the full list.

The examination will take place under supervision, and the recommended time limit is three hours. You may not use any notes or books. You will need to bring several pencils. A percentage score from the examination will be reported to the official at your school.

In preparation for the examination, review the TEKS for this subject. It is important to prepare adequately. Any textbook from the Texas Adoption list can be used for a review. All TEKS are assessed except 1b, 2a-b, 4, 5, 9a-c, 13a, 13d, 14a-b, and 15. These TEKS will be evaluated by the student's most recent teacher (or a teacher who is able to observe the student) using a Teacher Evaluation Form that will be sent to the proctor.

For more information about CBE policies, visit <http://www.ode.ttu.edu/takeacbe/>.

Good luck on your test!

## Texas Essential Knowledge and Skills MATH K – Kindergarten Mathematics

TTU: Kindergarten - Mathematics CBE	
TEKS: §111.12. Mathematics, Kindergarten.	
TEKS Covered	TEKS Requirement (Kindergarten)
	<b>§111.12. Mathematics, Kindergarten.</b>
	(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.
	(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) <b>Number, operation, and quantitative reasoning.</b> The student uses numbers to name quantities. The student is expected to:
✓	(A) 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;
✓	(B) use sets of concrete objects to represent quantities given in verbal or written form (through 20); and
✓	(C) use numbers to describe how many objects are in a set (through 20) using verbal and symbolic descriptions.
	(2) <b>Number, operation, and quantitative reasoning.</b> The student describes order of events or objects. The student is expected to:
✓	(A) use language such as before or after to describe relative position in a sequence of events or objects; and
✓	(B) name the ordinal positions in a sequence such as first, second, third, etc.
	(3) <b>Number, operation, and quantitative reasoning.</b> The student recognizes that there are quantities less than a whole. The student is expected to:
✓	(A) share a whole by separating it into two equal parts; and
✓	(B) explain why a given part is half of the whole.
✓	(4) <b>Number, operation, and quantitative reasoning.</b> 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.

✓	(5) <b>Patterns, relationships, and algebraic thinking.</b> The student identifies, extends, and creates patterns. The student is expected to identify, extend, and create patterns of sounds, physical movement, and concrete objects.
	(6) <b>Patterns, relationships, and algebraic thinking.</b> The student uses patterns to make predictions. The student is expected to:
✓	(A) use patterns to predict what comes next, including cause-and-effect relationships; and
✓	(B) count by ones to 100.
	(7) <b>Geometry and spatial reasoning.</b> The student describes the relative positions of objects. The student is expected to:
✓	(A) describe one object in relation to another using informal language such as over, under, above, and below; and
✓	(B) place an object in a specified position.
	(8) <b>Geometry and spatial reasoning.</b> The student uses attributes to determine how objects are alike and different. The student is expected to:
✓	(A) describe and identify an object by its attributes using informal language;
✓	(B) compare two objects based on their attributes; and
✓	(C) sort a variety of objects including two- and three-dimensional geometric figures according to their attributes and describe how the objects are sorted.
	(9) <b>Geometry and spatial reasoning.</b> The student recognizes attributes of two- and three-dimensional geometric figures. The student is expected to:
✓	(A) describe and compare the attributes of real-life objects such as balls, boxes, cans, and cones or models of three-dimensional geometric figures;
✓	(B) recognize shapes in real-life three-dimensional geometric figures or models of three-dimensional geometric figures; and
✓	(C) describe, identify, and compare circles, triangles, rectangles, and squares (a special type of rectangle).
	(10) <b>Measurement.</b> 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:
✓	(A) compare and order two or three concrete objects according to length (longer/shorter than, or the same);
✓	(B) compare the areas of two flat surfaces of two-dimensional figures (covers more, covers less, or covers the same);
✓	(C) compare two containers according to capacity (holds more, holds less, or holds the same);
✓	(D) compare two objects according to weight/mass (heavier than, lighter than or equal to); and
✓	(E) compare situations or objects according to relative temperature (hotter/colder than, or the same as).
	(11) <b>Measurement.</b> The student uses time to describe, compare, and order events and situations. The student is expected to:
✓	(A) compare events according to duration such as more time than or less time than;
✓	(B) sequence events (up to three); and
✓	(C) read a calendar using days, weeks, and months.
	(12) <b>Probability and statistics.</b> The student constructs and uses graphs of real objects or pictures to answer questions. The student is expected to:
✓	(A) construct graphs using real objects or pictures in order to answer questions; and

✓	(B) use information from a graph of real objects or pictures in order to answer questions.
	(13) <b>Underlying processes and mathematical tools.</b> The student applies Kindergarten mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:
✓	(A) identify mathematics in everyday situations;
✓	(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;
✓	(C) 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; and
✓	(D) use tools such as real objects, manipulatives, and technology to solve problems.
	(14) <b>Underlying processes and mathematical tools.</b> The student communicates about Kindergarten mathematics using informal language. The student is expected to:
✓	(A) communicate mathematical ideas using objects, words, pictures, numbers, and technology; and
✓	(B) relate everyday language to mathematical language and symbols.
✓	(15) <b>Underlying processes and mathematical tools.</b> The student uses logical reasoning. The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology. The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.
	<i>Source: The provisions of this §111.12 adopted to be effective September 1, 1998, 22 TexReg 7623; amended to be effective August 1, 2006, 30 TexReg 7471.</i>