Prepared by the State Board of Education Science TEKS Streamlining Committees

First Draft, September 2016

These draft proposed revisions reflect the changes to the science Texas Essential Knowledge and Skills (TEKS) that have been recommended by State Board of Education-appointed TEKS streamlining committees for **Kindergarten - Grade 2**. Proposed deletions are shown in red font with strikethroughs (~~deletions~~). Text proposed to be moved from its current student expectation is shown in purple font with strikethrough (~~moved text~~) and is shown in the proposed new location in purple font with underlines (new text location). Recommendations to clarify language are shown in blue font with underlines (clarifying language).

Comments in the right-hand column provide explanations for the proposed changes. The following notations were used as part of the explanations:

CRS—information added or changed to align with the Texas College and Career Readiness Standards (CCRS)

ER—information added, changed, or deleted based on expert reviewer feedback

MV—multiple viewpoints from within the committee

VA—information added, changed, or deleted to increase vertical alignment

KINDERGARTEN - GRADE 2, SCIENCE DRAFT RECOMMENDATIONS TABLE OF CONTENTS

§112.11. Science, Kindergarten, Beginning with School Year 2010-2011.		
TEKS with edits		Committee Comments
(a)	**Introduction.**	
(1)	Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process."	
(2)	Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include patterns, cycles, systems, models, and change and constancy.	
(3)	The study of elementary science includes planning and safely implementing classroom and outdoor investigations using scientific processes, including inquiry methods, analyzing information, making informed decisions, and using tools to collect and record information, while addressing the major	

(b) **Knowledge and skills.**

(4) **Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the**

§112.12. Science, Grade 1, Beginning with School Year 2010-2011.

TEKS with edits

(b)	**Knowledge and skills.**	
(1)	**Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:**	
(A)	recognize and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately;	
(B)	recognize the importance of safe practices to keep self and others safe and healthy; and	
(C)	identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals.	
(2)	**Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:**	

(A)

(A)	collect, record, and compare information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles; timing devices, ~~including clocks and timers~~; non-standard measuring items ~~such as paper clips and clothespins~~; weather instruments such as ~~classroom~~ demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as aquariums and terrariums; and	Clarification: clocks and timers are redundant; examples for non-standard measuring items not needed
(B)	measure and compare organisms and objects using non-standard units.	
(5)	**Matter and energy. The student knows that objects have properties and patterns. The student is expected to:**	
(A)	classify objects by the materials from which they are made and observable properties ~~of the materials from which they are made~~ such as larger and smaller, heavier and lighter, shape, color, and texture; and	Clarification: clarifying intention by distinguishing between classification of materials and observable properties of those materials Survey Supported
(B)	predict and identify changes in materials caused by heating and cooling. ~~such as ice melting, water freezing, and water evaporating~~.	Clarification: not developmentally appropriate; implies water cycle which is introduced in 4th grade Survey Supported
(6)	**Force, motion, and energy. The student knows that force, motion, and energy are related and are a part of everyday life. The student is expected to:**	
(A)	identify and discuss how different forms of energy such as light, heat, and sound are important to everyday life;	
(B)	predict and describe how a magnet can be used to push or pull an object; and	
(C)	~~describe the change in the location of an object such as closer to, nearer to, and farther from; and~~	Duplicate: K(6)(C) Survey comments align with the committee's recommendation to strike through this expectation.
(D)	demonstrate and record the ways that objects can move ~~such as in a straight line, zig zag, up and down, back and forth, round and round, and fast and slow~~.	Duplicate: redundant with a kindergarten SE K(6)(C)(D)
(7)	**Earth and space. The student knows that the natural world includes rocks, soil, and water that can be observed in cycles, patterns, and systems. The student is expected to:**	
(A)	observe, compare, describe, and sort components of soil by size, texture, and color;	
(B)	identify and describe a variety of natural sources of water, including streams, lakes, and oceans; and	

§112.13. Science, Grade 2, Beginning with School Year 2010-2011.		
TEKS with edits		Committee Comments
(a)	**Introduction.**	
(1)	Science, as defined by the National Academy of Sciences, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process."	
(2)	Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include patterns, cycles, systems, models, and change and constancy.	
(3)	The study of elementary science includes planning and safely implementing classroom and outdoor investigations using scientific processes, including inquiry methods, analyzing information, making informed decisions, and using tools to collect and record information, while addressing the major concepts and vocabulary, in the context of physical, earth, and life sciences. Districts are encouraged to facilitate classroom and outdoor investigations for at least 60% of instructional time.	
(4)	In Grade 2, careful observation and investigation are used to learn about the natural world and reveal patterns, changes, and cycles. Students should understand that certain types of questions can be answered by using observation and investigations and that the information gathered in these may change as new observations are made. As students participate in investigation, they develop the skills lio.(i)-4.s	

(4) **S**

(7)	**Earth and space. The student knows that the natural world includes earth materials. The student is expected to:**	
(A)	observe, describe, and compare rocks by size, texture, and color;	Clarification: VA Information moved from kindergarten to increase vertical alignment and increases rigor from kindergarten to provide a learning progression. This will not impact current instructional resources. Survey Supported
(B)	identify and compare the properties of natural sources of freshwater and saltwater; and	
(C)	distinguish between natural and manmade resources.	The committee and survey responses believe a change is necessary but is outside the directive of this Streamlining Committee and has current instructional resource implications.
(8)	**Earth and space. The student knows that there are recognizable patterns in the natural worldozan-ai9(u0.9(t)-1.9)7.3(bj)-6retc n thehel6(t)10.ky7.3(.u0.9(T.7(7( )-16((t)-1.9(t)10.he)-24(udt)-2(u( )-11(nr)7.2EM)-1.9(n t)4.(t)10.(t)-1. sp(n n)10c(n)10.piauwianmeen nl n d eeth rhiaueet 10.5 (n)10.9 thht was0.48 re f 30.84 446.043620(0.48 re (f 122.28 446.043620(0.48re f**	

(C)	compare ~~and give examples of~~ the ways living organisms depend on each other and on their environments such as food chains ~~within a garden, park, beach, lake, and wooded area~~.	Clarification: redundant, excessive “such as” examples
(10)	**Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:**	
(A)	observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs ~~such as fins help fish move and balance in the water~~;	Clarification: this “such as” may confine the purpose of the SE
(B)	observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as stems carry water throughout the plant; and	
(C)	investigate and record some of the unique stages that insects undergo during their life cycle such as grasshoppers and butterflies.	Clarification: this addition clarifies the scope of this SE and vertically aligns it with K-5