Subject	Chapter 112. Science	Chapter 112. Science			
Course Title	§112.12. Science, Grade 1, Beginnin	112.12. Science, Grade 1, Beginning with School Year 2010-2011.			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement	

## (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 80% of instructional time.
- (4) In Grade 1, students observe and describe the natural world using their five senses. Students do science as inquiry in order to develop and enrich their abilities to understand the world around them in the context of scientific concepts and processes. Students develop vocabulary through their experiences investigating properties of common objects, earth materials, and organisms.
- (A) A central theme in first grade science is active engagement in asking questions, communicating ideas, and exploring with scientific tools in order to explain scientific concepts and processes like scientific investigation and reasoning; matter and energy; force, motion, and energy; Earth and space; and organisms and environment. Scientific investigation and reasoning involves practicing safe procedures, asking questions about the natural world, and seeking answers to those questions through simple observations and descriptive investigations.
- (B) Matter is described in terms of its physical properties, including relative size and mass, shape, color, and texture. The importance of light, heat, and sound energy is identified as it relates to the students' everyday life. The location and motion of objects are explored.
- (C) Weather is recorded and discussed on a daily basis so students may begin to recognize patterns in the weather. In addition, patterns are observed in the appearance of objects in the sky.

(D) In life science, students recognize the interdependence of organisms in the natural world. They understand that all organisms have basic needs that can be satisfied through interactions with living and nonliving things. Students will investigate life cycles of animals and identify likenesses between parents and offspring.

(b) Knowledge and skills.			
(1) Scientific investigation and	(A) recognize and demonstrate safe practices	(i) recognize safe practices as described in the	
reasoning. The student conducts	as described in the Texas Safety Standards	Texas Safety Standards during classroom	
classroom and outdoor investigations	during classroom and outdoor investigations,	investigations, including wearing safety goggles	
following home and school safety	including wearing safety goggles, washing		
procedures and uses environmentally	hands, and using materials appropriately		
appropriate and responsible practices.			
The student is expected to:			

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(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	(ii) recognize safe practices as described in the Texas Safety Standards during classroom investigations, including washing hands		
(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	(iii) recognize safe practices as described in the Texas Safety Standards during classroom investigations, including using materials appropriately		
(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	(iv) recognize safe practices as described in the Texas Safety Standards during outdoor investigations, including wearing safety goggles		
(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	(v) recognize safe practices as described in the Texas Safety Standards during outdoor investigations, including washing hands		
(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	(vi) recognize safe practices as described in the Texas Safety Standards during outdoor investigations, including using materials appropriately		

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(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	(vii) demonstrate safe practices as described in the Texas Safety Standards during classroom investigations, including wearing safety goggles		
(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	(viii) demonstrate safe practices as described in the Texas Safety Standards during classroom investigations, including washing hands		
(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	(ix) demonstrate safe practices as described in the Texas Safety Standards during classroom investigations, including using materials appropriately		
(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	(x) demonstrate safe practices as described in the Texas Safety Standards during outdoor investigations, including wearing safety goggles		
(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	(xi) demonstrate safe practices as described in the Texas Safety Standards during outdoor investigations, including washing hands		

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(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:	as described in the Texas Safety Standards	(xii) demonstrate safe practices as described in the Texas Safety Standards during outdoor investigations, including using materials appropriately		
(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:	(B) recognize the importance of safe practices to keep self and others safe and healthy	(i) recognize the importance of safe practices to keep self safe		
(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:	(B) recognize the importance of safe practices to keep self and others safe and healthy	(ii) recognize the importance of safe practices to keep self healthy		
(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:	(B) recognize the importance of safe practices to keep self and others safe and healthy	(iii) recognize the importance of safe practices to keep others safe		
(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:	(B) recognize the importance of safe practices to keep self and others safe and healthy	(iv) recognize the importance of safe practices to keep others healthy		

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(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:	(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	(i) identify natural resources		
(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:	(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	(ii) learn how to use natural resources including conservation		
(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:	(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	(iii) identify materials		
(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:	(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	(iv) learn how to use materials, including reuse or recycling of paper		
(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:	(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	(v) learn how to use materials, including reuse or recycling of plastic		

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(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:	(C) identify and learn how to use natural resources and materials, including conservation and reuse or recycling of paper, plastic, and metals	(vi) learn how to use materials, including reuse or recycling of 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) ask questions about organisms, objects, and events observed in the natural world	(i) ask questions about organisms observed in the natural world		
(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) ask questions about organisms, objects, and events observed in the natural world	(ii) ask questions about objects observed in the natural world		
(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) ask questions about organisms, objects, and events observed in the natural world	(iii) ask questions about events observed in the natural world		
(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:	(B) plan and conduct simple descriptive investigations such as ways objects move	(i) plan simple descriptive investigations		
(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:	(B) plan and conduct simple descriptive investigations such as ways objects move	(ii) conduct simple descriptive investigations		

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reasoning. The student develops abilities	(C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools	(i) collect data using simple equipment		
reasoning. The student develops abilities	(C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools	(ii) make observations using simple equipment		
(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:	(D) record and organize data using pictures, numbers, and words	(i) record data using pictures		
(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:	(D) record and organize data using pictures, numbers, and words	(ii) record data using numbers		
(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:	(D) record and organize data using pictures, numbers, and words	(iii) record data using words		
(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:	(D) record and organize data using pictures, numbers, and words	(iv) organize data using pictures		

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(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:	(D) record and organize data using pictures, numbers, and words	(v) organize data using numbers		
(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:	(D) record and organize data using pictures, numbers, and words	(vi) organize data using words		
(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:	(E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations	(i) communicate observations using student- generated data from simple descriptive investigations		
(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:	(E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations	(ii) provide reasons for explanations using student-generated data from simple descriptive investigations		
(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:	l' '	(i) identify a problem		
(3) Scientific investigation and		(ii) explain a problem		
(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:		(iii) propose a solution in his/her own words		

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(3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:  (3) Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving. The student	(C) describe what scientists do			
is expected to:  (4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(i) collect information using tools, including computers		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:		(ii) collect information using tools, including hand lenses		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(iii) collect information using tools, including primary balances		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(iv) collect information using tools, including cups		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(v) collect information using tools, including bowls		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(vi) collect information using tools, including magnets		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(vii) collect information using tools, including collecting nets		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(viii) collect information using tools, including safety goggles		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(ix) collect information using tools, including timing devices including clocks		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(x) collect information using tools, including timing devices including timers		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xi) collect information using tools, including non-standard measuring items		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xii) collect information using tools, including weather instruments		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xiii) collect information using tools, including materials to support observation of habitats of organisms		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xiv) record information using tools, including computers		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xv) record information using tools, including notebooks		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xvi) compare information using tools, including computers		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xvii) compare information using tools, including hand lenses		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xviii) compare information using tools, including primary balances		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xix) compare information using tools, including cups		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xx) compare information using tools, including bowls		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxi) compare information using tools, including magnets		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxii) compare information using tools, including collecting nets		

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(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxiii) compare information using tools, including notebooks		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxiv) compare information using tools, including timing devices including clocks		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxv) compare information using tools, including timing devices including timers		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxvi) compare information using tools, including non-standard measuring items		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxvii) compare information using tools, including weather instruments		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(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	(xxviii) compare information using tools, including materials to support observations of habitats of organisms		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(B) measure and compare organisms and objects using non-standard units	(i) measure organisms using non-standard units		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(B) measure and compare organisms and objects using non-standard units	(ii) measure objects using non-standard units		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(B) measure and compare organisms and objects using non-standard units	(iii) compare organisms using non-standard units		
(4) Scientific investigation and reasoning. The student uses ageappropriate tools and models to investigate the natural world. The student is expected to:	(B) measure and compare organisms and objects using non-standard units	(iv) compare 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 observable properties of the materials from which they are made such as larger and smaller, heavier and lighter, shape, color, and texture	(i) classify objects by observable properties of the materials from which they are made		
(5) Matter and energy. The student knows that objects have properties and patterns. The student is expected to:	(B) predict and identify changes in materials caused by heating and cooling such as ice melting, water freezing, and water evaporating	(i) predict changes in materials caused by heating		
(5) Matter and energy. The student knows that objects have properties and patterns. The student is expected to:	(B) predict and identify changes in materials caused by heating and cooling such as ice melting, water freezing, and water evaporating	(ii) predict changes in materials caused by cooling		
(5) Matter and energy. The student knows that objects have properties and patterns. The student is expected to:	(B) predict and identify changes in materials caused by heating and cooling such as ice melting, water freezing, and water evaporating	(iii) identify changes in materials caused by heating		
(5) Matter and energy. The student knows that objects have properties and patterns. The student is expected to:	(B) predict and identify changes in materials caused by heating and cooling such as ice melting, water freezing, and water evaporating	(iv) identify changes in materials caused by cooling		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(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:	energy such as light, heat, and sound are important to everyday life	(i) identify how different forms of energy are important to everyday life		
(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:	energy such as light, heat, and sound are important to everyday life	(ii) discuss how different forms of energy are important to everyday life		
(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:		(i) predict how a magnet can be used to push or pull an object		
(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:	, ,	(ii) describe how a magnet can be used to push or pull an object		
(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:	object such as closer to, nearer to, and farther from	(i) describe the change in the location of an object		
(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:	(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	(i) demonstrate the ways that objects can move		

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Course Title	§112.12. Science, Grade 1, Beginning with School Year 2010-2011.				
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement	
(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:	(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	(ii) record the ways that objects can move			
(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	(i) observe components of soil			
(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	(ii) compare components of soil			
(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	(iii) describe components of soil			
(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	(iv) sort components of soil by size			

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(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	(v) sort components of soil by texture		
(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	(vi) sort components of soil by color		
(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:		(i) identify a variety of natural sources of water, including streams		
(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:	(B) identify and describe a variety of natural sources of water, including streams, lakes, and oceans	(ii) identify a variety of natural sources of water, including lakes		
(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:	(B) identify and describe a variety of natural sources of water, including streams, lakes, and oceans	(iii) identify a variety of natural sources of water, including oceans		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(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:	(B) identify and describe a variety of natural sources of water, including streams, lakes, and oceans	(iv) describe a variety of natural sources of water, including streams		
(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:	(B) identify and describe a variety of natural sources of water, including streams, lakes, and oceans	(v) describe a variety of natural sources of water, including lakes		
(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:	(B) identify and describe a variety of natural sources of water, including streams, lakes, and oceans	(vi) describe a variety of natural sources of water, including oceans		
(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:	(C) gather evidence of how rocks, soil, and water help to make useful products	(i) gather evidence of how rocks help to make useful products		
(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:	(C) gather evidence of how rocks, soil, and water help to make useful products	(ii) gather evidence of how soil help[s] to make useful products		

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(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:	(C) gather evidence of how rocks, soil, and water help to make useful products	(iii) gather evidence of how water help[s] to make useful products		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(A) record weather information, including relative temperature, such as hot or cold, clear or cloudy, calm or windy, and rainy or icy	(i) record weather information, including relative temperature		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(B) observe and record changes in the appearance of objects in the sky such as clouds, the Moon, and stars, including the Sun	(i) observe changes in the appearance of objects in the sky, including the Sun		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(B) observe and record changes in the appearance of objects in the sky such as clouds, the Moon, and stars, including the Sun	(ii) record changes in the appearance of objects in the sky, including the Sun		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(C) identify characteristics of the seasons of the year and day and night	(i) identify characteristics of the seasons of the year		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(C) identify characteristics of the seasons of the year and day and night	(ii) identify characteristics of day		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(C) identify characteristics of the seasons of the year and day and night	(iii) identify characteristics of night		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(D) demonstrate that air is all around us and observe that wind is moving air	(i) demonstrate that air is all around us		
(8) Earth and space. The student knows that the natural world includes the air around us and objects in the sky. The student is expected to:	(D) demonstrate that air is all around us and observe that wind is moving air	(ii) observe that wind is moving air		
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	based upon whether or not they have basic needs and produce offspring	(i) sort living and nonliving things based upon whether or not they have basic needs		
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	(A) sort and classify living and nonliving things based upon whether or not they have basic needs and produce offspring	(ii) sort living and nonliving things based upon whether or not they produce offspring		
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	based upon whether or not they have basic needs and produce offspring	(iii) classify living and nonliving things based upon whether or not they have basic needs		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	based upon whether or not they have basic needs and produce offspring	(iv) classify living and nonliving things based upon whether or not they produce offspring		
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	(B) analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver	(i) analyze examples of interdependence found in various situations		
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	(B) analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver	(ii) record examples of interdependence found in various situations		
(9) Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:	(C) gather evidence of interdependence among living organisms such as energy transfer through food chains and animals using plants for shelter	(i) gather evidence of interdependence among living organisms		
(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) investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats	(i) investigate how the external characteristics of an animal are related to where it lives		

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(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) investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats	(ii) investigate how the external characteristics of an animal are related to how it moves		
(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) investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats	(iii) investigate how the external characteristics of an animal are related to what it eats		
(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:	(B) identify and compare the parts of plants	(i) identify the parts of plants		
(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:	(B) identify and compare the parts of plants	(ii) compare the parts of plants		
(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:	(C) compare ways that young animals resemble their parents			

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(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:	(D) observe and record life cycles of animals such as a chicken, frog, or fish	(i) observe life cycles of animals		
(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:	(D) observe and record life cycles of animals such as a chicken, frog, or fish	(ii) record life cycles of animals		

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