Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(a) Introduction.				

- (1) Science, as defined by the National Academy of Science, is the "use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process." This vast body of changing and increasing knowledge is described by physical, mathematical, and conceptual models. Students should know that some questions are outside the realm of science because they deal with phenomena that are not scientifically testable.
- (2) Scientific hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power that have been tested over a wide variety of conditions become theories. Scientific theories are based on natural and physical phenomena and are capable of being tested by multiple, independent researchers. Students should know that scientific theories, unlike hypotheses, are well-established and highly reliable, but they may still be subject to change as new information and technologies are developed. Students should be able to distinguish between scientific decision-making methods and ethical/social decisions that involve the application of scientific information.
- (3) Grade 7 science is interdisciplinary in nature; however, much of the content focus is on organisms and the environment. National standards in science are organized as a multi-grade blocks such as Grades 5-8 rather than individual grade levels. In order to follow the grade level format used in Texas, the various national standards are found among Grades 6, 7, and 8. Recurring themes are pervasive in sciences, mathematics, and technology. These ideas transcend disciplinary boundaries and include change and constancy, patterns, cycles, systems, models, and scale.
- (4) The strands for Grade 7 include:
- (A) Scientific investigation and reasoning.
- (i) To develop a rich knowledge of science and the natural world, students must become familiar with different modes of scientific inquiry, rules of evidence, ways of formulating questions, ways of proposing explanations, and the diverse ways scientists study the natural world and propose explanations based on evidence derived from their work.
- (ii) Scientific investigations are conducted for different reasons. All investigations require a research question, careful observations, data gathering, and analysis of the data to identify the patterns that will explain the findings. Descriptive investigations are used to explore new phenomena such as conducting surveys of organisms or measuring the abiotic components in a given habitat. Descriptive statistics include frequency, range, mean, median, and mode. A hypothesis is not required in a descriptive investigation. On the other hand, when conditions can be controlled in order to focus on a single variable, experimental research design is used to determine causation. Students should experience both types of investigations and understand that different scientific research questions require different research designs.
- (iii) Scientific investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations, and the methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. Models have limitations and based on new discoveries are constantly being modified to more closely reflect the natural world.
- (B) Matter and energy. Matter and energy are conserved throughout living systems. Radiant energy from the Sun drives much of the flow of energy throughout living systems due to the process of photosynthesis in organisms described as producers. Most consumers then depend on producers to meet their energy needs. Decomposers play an important role in recycling matter. Organic compounds are composed of carbon and other elements that are recycled due to chemical changes that rearrange the elements for the particular needs of that living system. Large molecules such as carbohydrates are composed of chains of smaller units such as sugars, similar to a train being composed of multiple box cars. Subsequent grade levels will learn about the differences at the molecular and atomic level.
- (C) Force, motion, and energy. Force, motion, and energy are observed in living systems and the environment in several ways. Interactions between muscular and skeletal systems allow the body to apply forces and transform energy both internally and externally. Force and motion can also describe the direction and growth of seedlings, turgor pressure, and geotropism. Catastrophic events of weather systems such as hurricanes, floods, and tornadoes can shape and restructure the environment through the force and motion evident in them. Weathering, erosion, and deposition occur in environments due to the forces of gravity, wind, ice, and water.

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Subject	§112.19.Science, Grade 7, B	eginning with School Year 201	0-2011.	
Course Title		_		
	Student Expectation	Breakout	Element	Subelement
		served in a variety of settings. B in our solar system that allow life		activities can impact Earth systems.
adapted to that region of Earth and external stimuli. External s as a feedback mechanism. Eco	. Organisms are living systems timuli include human activity or plogical succession can be see	that maintain a steady state with the environment. Successful org n on a broad or small scale.	that environment and whose panisms can reestablish a bala	t different living organisms that are balance may be disrupted by internal ance through different processes such
the next generation. These trait in a population over many gene structures in living systems fror	ts are contained in genetic mat erations. One of the ways a cha m a previous focus on external	erial that is found on genes withit ange can occur is through the pro structures to an understanding o	n a chromosome from the pare ocess of natural selection. Stud f internal structures and functi	
and animal cells and understar can organize into tissues, tissu	nd the internal structures within les into organs, and organs into	them that allow them to obtain e	nergy, get rid of wastes, grow, arn the major functions of hum	material. Students will compare plant and reproduce in different ways. Cells an body systems such as the ability of emove waste.
(b) Knowledge and skills.				
(1) Scientific investigation and		(i) demonstrate safe practices		
•	practices during laboratory	during laboratory		
	and field investigations as	investigations as outlined in		
	outlined in the Texas Safety	the Texas Safety Standards		
	Standards			
safety procedures and				
environmentally appropriate				
and otheral proofices. The				

-	outlined in the Texas Safety Standards	the Texas Safety Standards	
least 40% of instructional time, conducts laboratory and	practices during laboratory and field investigations as	(ii) demonstrate safe practices during field investigations as outlined in the Texas Safety Standards	

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,			
TEKS (Knowledge and (1) Scientific investigation and reasoning. The student, for at least 40% of instructional	Student Expectation (B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials	Breakout (i) practice appropriate use of resources, including disposal, reuse, or recycling of materials	Element	Subelement
(1) Scientific investigation and reasoning. The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. The student is expected to:		(ii) practice appropriate conservation of resources, including disposal, reuse, or recycling of materials		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(i) plan comparative investigations by making observations		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(ii) plan comparative investigations by asking well-defined questions		

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Subject	§112.19.Science, Grade 7, Be	ginning with School Year 201	0-2011.	
Course Title	, ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(iii) plan comparative investigations by using appropriate equipment		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(iv) plan comparative investigations by using appropriate technology		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(v) implement comparative investigations by making observations		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(vi) implement comparative investigations by asking well-defined questions		

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Course Title	, ,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(vii) implement comparative investigations by using appropriate equipment		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(viii) implement comparative investigations by using appropriate technology		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(ix) plan descriptive investigations by making observations		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(x) plan descriptive investigations by asking well-defined questions		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(2) Scientific investigation and		(xi) plan descriptive		
	comparative and descriptive	investigations by using		
	investigations by making	appropriate equipment		
during laboratory and field	observations, asking well-			
	defined questions, and using			
expected to:	appropriate equipment and			
	technology			
(2) Scientific investigation and	(A) plan and implement	(xii) plan descriptive		
	comparative and descriptive	investigations by using		
scientific inquiry methods	investigations by making	appropriate technology		
during laboratory and field	observations, asking well-			
	defined questions, and using			
expected to:	appropriate equipment and			
	technology			
(2) Scientific investigation and	(A) plan and implement	(xiii) implement descriptive		
	comparative and descriptive	investigations by making		
	investigations by making	observations		
during laboratory and field	observations, asking well-			
	defined questions, and using			
expected to:	appropriate equipment and			
	technology			
(2) Scientific investigation and	(A) plan and implement	(xiv) implement descriptive		
	comparative and descriptive	investigations by asking well-		
scientific inquiry methods	investigations by making	defined questions		
during laboratory and field	observations, asking well-			
_	defined questions, and using			
expected to:	appropriate equipment and			
	technology			
				<u>l</u>

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(xv) implement descriptive investigations by using appropriate equipment		
scientific inquiry methods during laboratory and field	(A) plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	(xvi) implement descriptive investigations by using appropriate technology		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology	(i) design experimental investigations by making observations		
scientific inquiry methods during laboratory and field investigations. The student is expected to:	(B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology	defined questions		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology	(iii) design experimental investigations by formulating testable hypotheses		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(2) Scientific investigation and	(B) design and implement	(iv) design experimental		
	experimental investigations by	investigations by using		
	making observations, asking	appropriate equipment		
during laboratory and field	well-defined questions,			
	formulating testable			
	hypotheses, and using			
•	appropriate equipment and			
	technology			
(2) Scientific investigation and	(B) design and implement	(v) design experimental		
reasoning. The student uses	experimental investigations by	investigations by using		
scientific inquiry methods	making observations, asking	appropriate technology		
during laboratory and field	well-defined questions,			
investigations. The student is	formulating testable			
expected to:	hypotheses, and using			
	appropriate equipment and			
	technology			
(2) Scientific investigation and		(vi) implement experimental		
	experimental investigations by			
scientific inquiry methods	making observations, asking	observations		
during laboratory and field	well-defined questions,			
	formulating testable			
expected to:	hypotheses, and using			
	appropriate equipment and			
	technology			
(2) Scientific investigation and		(vii) implement experimental		
	experimental investigations by			
	making observations, asking	defined questions		
	well-defined questions,			
	formulating testable			
expected to:	hypotheses, and using			
	appropriate equipment and			
	technology			
(2) Scientific investigation and		(viii) implement experimental		
	experimental investigations by			
	making observations, asking	testable hypotheses		
	well-defined questions,			
	formulating testable			
expected to:	hypotheses, and using			
	appropriate equipment and			
	technology			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title		<u>gg cococa. zo.</u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to: (2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field	(B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology (B) design and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using	(ix) implement experimental investigations by using appropriate equipment (x) implement experimental	Element	Subelement
scientific inquiry methods during laboratory and field	appropriate equipment and technology (C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers	(i) collect data using the International System of Units (SI)		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers	(ii) collect data using qualitative means		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers	(iii) record data using the International System of Units (SI)		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
scientific inquiry methods during laboratory and field investigations. The student is	(C) collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers	(iv) record data using qualitative means		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	graphs, using repeated trials	(i) construct tables using repeated trials and means to organize data		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	graphs, using repeated trials	(ii) construct tables using repeated trials and means to identify patterns		
scientific inquiry methods	graphs, using repeated trials	(iii) construct graphs using repeated trials and means to organize data		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(D) construct tables and graphs, using repeated trials and means, to organize data and identify patterns	(iv) construct graphs using repeated trials and means to identify patterns		

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Course Title	, , ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
scientific inquiry methods during laboratory and field	(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends	(i) analyze data to formulate reasonable explanations		
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends	(ii) analyze data to communicate valid conclusions supported by the data		
scientific inquiry methods during laboratory and field	(E) analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends	(iii) analyze data to predict trends		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(i) in all fields of science, analyze scientific explanations by using empirical evidence		

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Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	analyze, evaluate, and critique	(ii) in all fields of science, analyze scientific explanations by using logical reasoning		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iii) in all fields of science, analyze scientific explanations by using experimental testing		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing		

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Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(v) in all fields of science, analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vi) in all fields of science, evaluate scientific explanations by using empirical evidence		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vii) in all fields of science, evaluate scientific explanations by using logical reasoning		

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Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(viii) in all fields of science, evaluate scientific explanations by using experimental testing		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ix) in all fields of science, evaluate scientific explanations by using observational testing		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	analyze, evaluate, and critique	(xi) in all fields of science, critique scientific explanations by using empirical evidence		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xii) in all fields of science, critique scientific explanations by using logical reasoning		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiii) in all fields of science, critique scientific explanations by using experimental testing		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiv) in all fields of science, critique scientific explanations by using observational testing		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xv) in all fields of science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations		
(3) Scientific investigation and reasoning. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions and knows the contributions of relevant scientists. The student is expected to:	(B) use models to represent aspects of the natural world such as human body systems and plant and animal cells	(i) use models to represent aspects of the natural world		

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Course Title	, , ,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(3) Scientific investigation and	(C) identify advantages and	(i) identify advantages of		
	limitations of models such as	models		
critical thinking, scientific	size, scale, properties, and			
reasoning, and problem	materials			
solving to make informed				
decisions and knows the				
contributions of relevant				
scientists. The student is				
expected to:				
(3) Scientific investigation and		(ii) identify limitations of		
•		models		
critical thinking, scientific	size, scale, properties, and			
reasoning, and problem	materials			
solving to make informed				
decisions and knows the				
contributions of relevant				
scientists. The student is				
expected to:				
(3) Scientific investigation and		(i) relate the impact of		
	_	research on scientific thought,		
critical thinking, scientific	and society, including the	including the history of		
reasoning, and problem	history of science and	science		
solving to make informed	contributions of scientists as			
decisions and knows the	related to the content			
contributions of relevant				
scientists. The student is				
expected to:				
(3) Scientific investigation and		(ii) relate the impact of		
		research on society, including		
		the history of science		
	history of science and			
S	contributions of scientists as			
decisions and knows the	related to the content			
contributions of relevant	1			
scientists. The student is	1			
expected to:				

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Course Title	, , , , , , , , , , , , , , , , , , ,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(3) Scientific investigation and	(D) relate the impact of	(iii) relate the impact of		
reasoning. The student uses	research on scientific thought	research on scientific thought,		
critical thinking, scientific	and society, including the	including the contributions of		
reasoning, and problem	history of science and	scientists as related to the		
solving to make informed	contributions of scientists as	content		
decisions and knows the	related to the content			
contributions of relevant				
scientists. The student is				
expected to:				
(3) Scientific investigation and	(D) relate the impact of	(iv) relate the impact of		
reasoning. The student uses	research on scientific thought	research on society, including		
critical thinking, scientific	and society, including the	the contributions of scientists		
reasoning, and problem	history of science and	as related to the content		
solving to make informed	contributions of scientists as			
decisions and knows the	related to the content			
contributions of relevant				
scientists. The student is				
expected to:				
(4) Science investigation and	(A) use appropriate tools to	(i) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	collect information, including		
how to use a variety of tools	information, including life	life science models		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			

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Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(ii) use appropriate tools to collect information, including hand lens	Lienent	Oubelettett
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(iii) use appropriate tools to collect information, including stereoscopes		

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Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(iv) use appropriate tools to collect information, including microscopes		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(v) use appropriate tools to collect information, including beakers		

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Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(vi) use appropriate tools to collect information, including Petri dishes		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(vii) use appropriate tools to collect information, including graduated cylinders		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(viii) use appropriate tools to collect information, including test tubes		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(ix) use appropriate tools to collect information, including meter sticks		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(x) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	collect information, including		
how to use a variety of tools	information, including life	metric rulers		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
· ·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	line cumculum			
(4) Science investigation and	(A) use appropriate tools to	(xi) use appropriate tools to		
	collect, record, and analyze	collect information, including		
how to use a variety of tools	information, including life	metric tape measures		
and safety equipment to	science models, hand lens,	metrie tape measures		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
student is expected to.	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xii) use appropriate tools to collect information, including timing devices		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xiii) use appropriate tools to collect information, including hot plates		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xiv) use appropriate tools to collect information, including balances		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xv) use appropriate tools to collect information, including thermometers		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xvi) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	collect information, including		
how to use a variety of tools	information, including life	calculators		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
· ·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	line cumculum			
(4) Science investigation and	(A) use appropriate tools to	(xvii) use appropriate tools to		
reasoning. The student knows		collect information, including		
how to use a variety of tools	information, including life	water test kits		
and safety equipment to	science models, hand lens,	water test kite		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
student is expected to.	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xviii) use appropriate tools to collect information, including computers		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xix) use appropriate tools to collect information, including temperature probes		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xx) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	collect information, including		
how to use a variety of tools	information, including life	pH probes		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
(4) Science investigation and	(A) use appropriate tools to	(xxi) use appropriate tools to		
reasoning. The student knows		collect information, including		
	information, including life	collecting nets		
and safety equipment to	science models, hand lens,	g		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	12			
	equipment as needed to teach the curriculum			
	ine cumculum			
	1			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to collect, record, and analyze	(xxii) use appropriate tools to collect information, including insect traps		
	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxiii) use appropriate tools to collect information, including globes		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xxiv) use appropriate tools to collect information, including digital cameras		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxv) use appropriate tools to collect information, including other equipment as needed		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xxvi) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	record information, including		
how to use a variety of tools	information, including life	calculators		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
(4) Science investigation and	(A) use appropriate tools to	(xxvii) use appropriate tools to		
reasoning. The student knows		record information, including		
	information, including life	computers		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	ine cumculum			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xxviii) use appropriate tools to record information, including digital cameras	Liement	Subelement
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxix) use appropriate tools to record information, including journals/notebooks		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xxx) use appropriate tools to record information including other equipment as needed		
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxxi) use appropriate tools to analyze information, including life science models		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xxxii) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	analyze information, including		
how to use a variety of tools	information, including life	hand lens		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
1	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	line curriculum			
(4) Science investigation and	(A) use appropriate tools to	(xxxiii) use appropriate tools to		
reasoning. The student knows		analyze information, including		
	information, including life	stereoscopes		
and safety equipment to	science models, hand lens,	Sicreoscopes		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
student is expected to.	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xxxiv) use appropriate tools to analyze information, including microscopes	Lienent	Subelement
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxxv) use appropriate tools to analyze information, including beakers		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
reasoning. The student knows	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxxvi) use appropriate tools to analyze information, including Petri dishes		
_	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xxxvii) use appropriate tools to analyze information, including microscope slides		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xxxviii) use appropriate tools		
reasoning. The student knows	collect, record, and analyze	to analyze information,		
how to use a variety of tools	information, including life	including graduated cylinders		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	the carriculant			
(4) Science investigation and	(A) use appropriate tools to	(xxxix) use appropriate tools to		
	collect, record, and analyze	analyze information, including		
how to use a variety of tools	information, including life	test tubes		
and safety equipment to	science models, hand lens,	1001 1000		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
otadoni io expedica to:	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	l			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xl) use appropriate tools to analyze information, including meter sticks	Licitoria	
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xli) use appropriate tools to analyze information, including metric rulers		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xlii) use appropriate tools to analyze information, including metric tape measures	Lienent	Oubelettett
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xliii) use appropriate tools to analyze information, including timing devices		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xliv) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	analyze information, including		
how to use a variety of tools	information, including life	hot plates		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	ine camealam			
(4) Science investigation and	(A) use appropriate tools to	(xlv) use appropriate tools to		
	collect, record, and analyze	analyze information, including		
	information, including life	balances		
and safety equipment to	science models, hand lens,	Salarioso		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
otadoni io expedica to:	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(xlvi) use appropriate tools to		
reasoning. The student knows	collect, record, and analyze	analyze information, including		
how to use a variety of tools	information, including life	thermometers		
and safety equipment to	science models, hand lens,			
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
· ·	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			
	the carriculant			
(4) Science investigation and	(A) use appropriate tools to	(xlvii) use appropriate tools to		
reasoning. The student knows		analyze information, including		
how to use a variety of tools	information, including life	calculators		
and safety equipment to	science models, hand lens,	didiatoro		
conduct science inquiry. The	stereoscopes, microscopes,			
student is expected to:	beakers, Petri dishes,			
student is expected to:	microscope slides, graduated			
	cylinders, test tubes, meter			
	sticks, metric rulers, metric			
	tape measures, timing			
	devices, hot plates, balances,			
	thermometers, calculators,			
	water test kits, computers,			
	temperature and pH probes,			
	collecting nets, insect traps,			
	globes, digital cameras,			
	journals/notebooks, and other			
	equipment as needed to teach			
	the curriculum			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(xlviii) use appropriate tools to analyze information, including water test kits	Lienent	Subelement
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(xlix) use appropriate tools to analyze information, including computers		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(I) use appropriate tools to analyze information, including temperature probes	Licitoria	
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(li) use appropriate tools to analyze information, including pH probes		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(A) use appropriate tools to	(lii) use appropriate tools to analyze information, including collecting nets	Licitoria	
(4) Science investigation and reasoning. The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	(A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks, and other equipment as needed to teach the curriculum	(liii) use appropriate tools to analyze information, including insect traps		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to	(liv) use appropriate tools to analyze information, including globes		
		(Iv) use appropriate tools to analyze information, including digital cameras		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(4) Science investigation and	(A) use appropriate tools to collect, record, and analyze	(Ivi) use appropriate tools to analyze information, including journals/notebooks		
		(Ivii) use appropriate tools to analyze information, including other equipment as needed		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,			
	Student Expectation (B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher	Breakout (i) use preventative safety equipment, including chemical splash goggles	Element	Subelement
reasoning. The student knows how to use a variety of tools and safety equipment to	(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher	(ii) use preventative safety equipment, including aprons		
	(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher	(iii) use preventative safety equipment, including gloves		
reasoning. The student knows how to use a variety of tools and safety equipment to	(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher	(iv) be prepared to use emergency safety equipment, including an eye/face wash		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, , , , , , , , , , , , , , , , , , , ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
	(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher	(v) be prepared to use emergency safety equipment, including a fire blanket		
	(B) use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher	(vi) be prepared to use emergency safety equipment, including a fire extinguisher		
(5) Matter and energy. The student knows that interactions occur between matter and energy. The student is expected to:	(A) recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis			
interactions occur between matter and energy. The student is expected to:	(B) demonstrate and explain the cycling of matter within living systems such as in the decay of biomass in a compost bin	(i) demonstrate the cycling of matter within living systems		
interactions occur between matter and energy. The student is expected to:	(B) demonstrate and explain the cycling of matter within living systems such as in the decay of biomass in a compost bin	(ii) explain the cycling of matter within living systems		
(5) Matter and energy. The student knows that interactions occur between matter and energy. The student is expected to:	(C) diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids	(i) diagram the flow of energy through living systems, including food chains		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, , , , , , , , , , , , , , , , , , , ,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(5) Matter and energy. The	(C) diagram the flow of	(ii) diagram the flow of energy		
student knows that	energy through living systems,			
interactions occur between	including food chains, food	including food webs		
matter and energy. The	webs, and energy pyramids	-		
student is expected to:				
(5) Matter and energy. The	(C) diagram the flow of	(iii) diagram the flow of		
	energy through living systems,	energy through living systems,		
interactions occur between	including food chains, food	including energy pyramids		
matter and energy. The	webs, and energy pyramids			
student is expected to:				
(6) Matter and energy. The	(A) identify that organic	(i) identify that organic		
student knows that matter has		compounds contain carbon		
li ,	and other elements such as			
	hydrogen, oxygen,			
	phosphorus, nitrogen, or sulfur			
changes. The student is				
expected to:				
	(A) identify that organic	(ii) identify that organic		
student knows that matter has		compounds contain other		
physical and chemical	and other elements such as	elements		
	hydrogen, oxygen,			
	phosphorus, nitrogen, or sulfur			
changes. The student is				
expected to:				
(6) Matter and energy. The	(B) distinguish between			
student knows that matter has				
	changes in matter in the			
	digestive system			
physical and chemical				
changes. The student is				
expected to:				
(6) Matter and energy. The	(C) recognize how large	(i) recognize how large		
student knows that matter has		molecules are broken down		
1. ,	into smaller molecules such	into smaller molecules		
	as carbohydrates can be			
	broken down into sugars			
changes. The student is				
expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(7) Force, motion, and		(i) contrast situations where		
energy. The student knows	work is done with different	work is done with different		
that there is a relationship	amounts of force to situations	amounts of force to situations		
among force, motion, and	where no work is done such	where no work is done		
energy. The student is	as moving a box with a ramp			
expected to:	and without a ramp, or			
	standing still			
(7) Force, motion, and	(B) illustrate the	(i) illustrate the transformation		
energy. The student knows	transformation of energy	of energy within an organism		
that there is a relationship	within an organism such as			
among force, motion, and	the transfer from chemical			
energy. The student is	energy to heat and thermal			
expected to:	energy in digestion			
(7) Force, motion, and	(C) demonstrate and illustrate	(i) demonstrate forces that		
energy. The student knows	forces that affect motion in	affect motion in everyday life		
that there is a relationship	everyday life such as			
among force, motion, and	emergence of seedlings,			
energy. The student is	turgor pressure, and			
expected to:	geotropism			
(7) Force, motion, and	(C) demonstrate and illustrate	(ii) illustrate forces that affect		
energy. The student knows	forces that affect motion in	motion in everyday life		
that there is a relationship	everyday life such as			
among force, motion, and	emergence of seedlings,			
energy. The student is	turgor pressure, and			
expected to:	geotropism			
(8) Earth and space. The	(A) predict and describe how	(i) predict how different types		
student knows that natural	different types of catastrophic	of catastrophic events impact		
events and human activity can	events impact ecosystems	ecosystems		
impact Earth systems. The	such as floods, hurricanes, or			
student is expected to:	tornadoes			
(8) Earth and space. The	(A) predict and describe how	(ii) describe how different		
student knows that natural	different types of catastrophic	types of catastrophic events		
events and human activity can	events impact ecosystems	impact ecosystems		
impact Earth systems. The	such as floods, hurricanes, or			
student is expected to:	tornadoes			
(8) Earth and space. The	(B) analyze the effects of	(i) analyze the effects of		
student knows that natural	weathering, erosion, and	weathering on the		
events and human activity can	deposition on the environment	environment in ecoregions of		
impact Earth systems. The	in ecoregions of Texas	Texas		
student is expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(8) Earth and space. The	(B) analyze the effects of	(ii) analyze the effects of		
student knows that natural	weathering, erosion, and	erosion on the environment in		
events and human activity can	deposition on the environment	ecoregions of Texas		
impact Earth systems. The	in ecoregions of Texas	-		
student is expected to:				
(8) Earth and space. The	(B) analyze the effects of	(iii) analyze the effects of		
student knows that natural	weathering, erosion, and	deposition on the environment		
events and human activity can	deposition on the environment	in ecoregions of Texas		
impact Earth systems. The	in ecoregions of Texas	G		
student is expected to:	Ğ			
(8) Earth and space. The	(C) model the effects of	(i) model the effects of human		
	human activity on	activity on groundwater in a		
events and human activity can	groundwater and surface	watershed		
impact Earth systems. The	water in a watershed			
student is expected to:				
(8) Earth and space. The	(C) model the effects of	(ii) model the effects of		
	human activity on	human activity on surface		
events and human activity can		water in a watershed		
impact Earth systems. The	water in a watershed			
student is expected to:				
(9) Earth and space. The	(A) analyze the	(i) analyze the characteristics		
student knows components of	characteristics of objects in	of objects in our solar system		
our solar system. The student	our solar system that allow life	that allow life to exist		
is expected to:	to exist such as the proximity			
·	of the Sun, presence of water,			
	and composition of the			
	atmosphere			
	'			
(9) Earth and space. The	(B) identify the			
	accommodations, considering			
our solar system. The student	the characteristics of our solar			
is expected to:	system, that enabled manned			
·	space exploration			
(10) Organisms and	(A) observe and describe how	(i) observe how different		
environments. The student	different environments,	environments, including		
knows that there is a	including microhabitats in	microhabitats in schoolyards,		
relationship between	schoolyards and biomes,	support different varieties of		
organisms and the	support different varieties of	organisms		
•	organisms	_		
expected to:	-			

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title			-	
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(10) Organisms and	(A) observe and describe how			
environments. The student	different environments,	environments, including		
knows that there is a	including microhabitats in	biomes, support different		
relationship between	schoolyards and biomes,	varieties of organisms		
organisms and the	support different varieties of	3		
environment. The student is	organisms			
expected to:				
(10) Organisms and	(A) observe and describe how	(iii) describe how different		
environments. The student	different environments,	environments, including		
knows that there is a	including microhabitats in	microhabitats in schoolyards,		
relationship between	schoolyards and biomes,	support different varieties of		
organisms and the	support different varieties of	organisms		
environment. The student is	organisms			
expected to:				
(10) Organisms and	(A) observe and describe how	(iv) describe how different		
environments. The student	different environments,	environments, including		
knows that there is a	including microhabitats in	biomes, support different		
relationship between	schoolyards and biomes,	varieties of organisms		
organisms and the	support different varieties of	3		
environment. The student is	organisms			
expected to:				
(10) Organisms and	(B) describe how biodiversity	(i) describe how biodiversity		
environments. The student	contributes to the	contributes to the		
knows that there is a	sustainability of an ecosystem	sustainability of an ecosystem		
relationship between		,		
organisms and the				
environment. The student is				
expected to:				
(10) Organisms and	(C) observe, record, and	(i) observe the role of		
environments. The student	describe the role of ecological	ecological succession		
knows that there is a	succession such as in a	-		
relationship between	microhabitat of a garden with			
organisms and the	weeds			
environment. The student is				
expected to:				
(10) Organisms and	(C) observe, record, and	(ii) record the role of		
environments. The student	describe the role of ecological	ecological succession		
knows that there is a	succession such as in a	-		
relationship between	microhabitat of a garden with			
organisms and the	weeds			
environment. The student is				
expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(10) Organisms and	(C) observe, record, and	(iii) describe the role of		
environments. The student	describe the role of ecological	ecological succession		
knows that there is a	succession such as in a			
relationship between	microhabitat of a garden with			
organisms and the	weeds			
environment. The student is				
expected to:				
(11) Organisms and	(A) examine organisms or	(i) examine organisms or their		
environments. The student	their structures such as	structures		
knows that populations and	insects or leaves and use			
species demonstrate variation	dichotomous keys for			
and inherit many of their	identification			
unique traits through gradual				
processes over many				
generations. The student is				
expected to:				
(11) Organisms and	(A) examine organisms or	(ii) use dichotomous keys for		
	their structures such as	identification		
knows that populations and	insects or leaves and use			
species demonstrate variation	dichotomous keys for			
and inherit many of their	identification			
unique traits through gradual				
processes over many				
generations. The student is				
expected to:				
(11) Organisms and	. , .	(i) explain variation within a		
environments. The student	population or species by	population or species by		
knows that populations and	comparing external features,	comparing external features,		
species demonstrate variation	behaviors, or physiology of	behaviors, or physiology of		
and inherit many of their	organisms that enhance their	organisms that enhance their		
unique traits through gradual	survival such as migration,	survival		
processes over many	hibernation, or storage of food			
generations. The student is	in a bulb			
expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	,	<u> </u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(11) Organisms and	(C) identify some changes in	(i) identify some changes in		
environments. The student	genetic traits that have	genetic traits that have		
knows that populations and	occurred over several	occurred over several		
species demonstrate variation	generations through natural	generations through natural		
and inherit many of their	selection and selective	selection		
unique traits through gradual	breeding such as the			
processes over many	Galapagos Medium Ground			
generations. The student is	Finch (Geospiza fortis) or			
expected to:	domestic animals			
(11) Organisms and	(C) identify some changes in	(ii) identify some changes in		
environments. The student	genetic traits that have	genetic traits that have		
knows that populations and	occurred over several	occurred over several		
species demonstrate variation	generations through natural	generations through selective		
and inherit many of their	selection and selective	breeding		
unique traits through gradual	breeding such as the			
processes over many	Galapagos Medium Ground			
generations. The student is	Finch (Geospiza fortis) or			
expected to:	domestic animals			
(12) Organisms and	(A) investigate and explain	(i) investigate how internal		
environments. The student	how internal structures of	structures of organisms have		
knows that living systems at	organisms have adaptations	adaptations that allow specific		
all levels of organization	that allow specific functions	functions		
demonstrate the	such as gills in fish, hollow			
complementary nature of	bones in birds, or xylem in			
structure and function. The	plants			
student is expected to:				
(12) Organisms and	(A) investigate and explain	(ii) explain how internal		
environments. The student	how internal structures of	structures of organisms have		
knows that living systems at	organisms have adaptations	adaptations that allow specific		
all levels of organization	that allow specific functions	functions		
demonstrate the	such as gills in fish, hollow			
complementary nature of	bones in birds, or xylem in			
structure and function. The	plants			
student is expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(12) Organisms and	(B) identify the main functions			
environments. The student	of the systems of the human	of the systems of the human		
knows that living systems at	organism, including the	organism, including the		
all levels of organization	circulatory, respiratory,	circulatory [system]		
demonstrate the	skeletal, muscular, digestive,			
complementary nature of	excretory, reproductive,			
structure and function. The	integumentary, nervous, and			
student is expected to:	endocrine systems			
(12) Organisms and	(B) identify the main functions			
environments. The student	of the systems of the human	of the systems of the human		
knows that living systems at	organism, including the	organism, including the		
all levels of organization	circulatory, respiratory,	respiratory [system]		
demonstrate the	skeletal, muscular, digestive,			
complementary nature of	excretory, reproductive,			
structure and function. The	integumentary, nervous, and			
student is expected to:	endocrine systems			
(12) Organisms and	(B) identify the main functions	(iii) identify the main functions		
environments. The student	of the systems of the human	of the systems of the human		
knows that living systems at	organism, including the	organism, including the		
all levels of organization	circulatory, respiratory,	skeletal [system]		
demonstrate the	skeletal, muscular, digestive,			
complementary nature of	excretory, reproductive,			
structure and function. The	integumentary, nervous, and			
student is expected to:	endocrine systems			
(12) Organisms and		(iv) identify the main functions		
environments. The student	of the systems of the human	of the systems of the human		
knows that living systems at	organism, including the	organism, including the		
all levels of organization	circulatory, respiratory,	muscular [system]		
demonstrate the	skeletal, muscular, digestive,			
complementary nature of	excretory, reproductive,			
structure and function. The	integumentary, nervous, and			
student is expected to:	endocrine systems			

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Subject	§112.19.Science, Grade 7, Be	ginning with School Year 201	0-2011.	
Course Title				
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	(B) identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	(v) identify the main functions of the systems of the human organism, including the digestive [system]		
(12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:		(vi) identify the main functions of the systems of the human organism, including the excretory [system]		
(12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	(B) identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	(vii) identify the main functions of the systems of the human organism, including the reproductive [system]		
(12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	(B) identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	(viii) identify the main functions of the systems of the human organism, including the integumentary [system]		

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	3.12.10.00.01.00, 0.440.1, 20	<u>gg coco ca. 20</u>		
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(12) Organisms and		(ix) identify the main functions		
environments. The student	of the systems of the human	of the systems of the human		
knows that living systems at	organism, including the	organism, including the		
all levels of organization	circulatory, respiratory,	nervous [system]		
demonstrate the	skeletal, muscular, digestive,			
complementary nature of	excretory, reproductive,			
structure and function. The	integumentary, nervous, and			
student is expected to:	endocrine systems			
(12) Organisms and	(B) identify the main functions	(x) identify the main functions		
environments. The student	of the systems of the human	of the systems of the human		
knows that living systems at	organism, including the	organism, including the		
all levels of organization	circulatory, respiratory,	endocrine [system]		
demonstrate the	skeletal, muscular, digestive,			
complementary nature of	excretory, reproductive,			
structure and function. The	integumentary, nervous, and			
student is expected to:	endocrine systems			
(12) Organisms and	(C) recognize levels of	(i) recognize levels of		
environments. The student	organization in plants and	organization in plants,		
knows that living systems at	animals, including cells,	including cells		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(C) recognize levels of	(ii) recognize levels of		
environments. The student	organization in plants and	organization in plants,		
knows that living systems at	animals, including cells,	including tissues		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to: (12) Organisms and	(C) recognize levels of	(iii) recognize levels of		
environments. The student	organization in plants and	organization in plants,		
knows that living systems at	animals, including cells,	including organs		
all levels of organization	tissues, organs, organ	including organs		
demonstrate the	systems, and organisms			
complementary nature of	and organisms			
structure and function. The				
student is expected to:				
student is expected to.	<u>l</u>			J

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(12) Organisms and	(C) recognize levels of	(iv) recognize levels of		
environments. The student	organization in plants and	organization in plants,		
knows that living systems at	animals, including cells,	including organ systems		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(C) recognize levels of	(v) recognize levels of		
environments. The student	organization in plants and	organization in plants,		
knows that living systems at	animals, including cells,	including organisms		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(C) recognize levels of	(vi) recognize levels of		
environments. The student	organization in plants and	organization in animals,		
knows that living systems at	animals, including cells,	including cells		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(C) recognize levels of	(vii) recognize levels of		
environments. The student	organization in plants and	organization in animals,		
knows that living systems at	animals, including cells,	including tissues		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(C) recognize levels of	(viii) recognize levels of		
environments. The student	organization in plants and	organization in animals,		
knows that living systems at	animals, including cells,	including organs		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(12) Organisms and	(C) recognize levels of	(ix) recognize levels of		
environments. The student	organization in plants and	organization in animals,		
knows that living systems at	animals, including cells,	including organ systems		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(C) recognize levels of	(x) recognize levels of		
environments. The student	organization in plants and	organization in animals,		
knows that living systems at	animals, including cells,	including organisms		
all levels of organization	tissues, organs, organ			
demonstrate the	systems, and organisms			
complementary nature of				
structure and function. The				
student is expected to:				
(12) Organisms and	(D) differentiate between	(i) differentiate between		
environments. The student	structure and function in plant	structure and function in plant		
knows that living systems at	and animal cell organelles,	cell organelles, including cell		
all levels of organization	including cell membrane, cell	membrane		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				
(12) Organisms and	(D) differentiate between	(ii) differentiate between		
environments. The student	structure and function in plant	structure and function in plant		
knows that living systems at	and animal cell organelles,	cell organelles, including cell		
all levels of organization		wall		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				
(12) Organisms and	(D) differentiate between	(iii) differentiate between		
environments. The student				
knows that living systems at	and animal cell organelles,	cell organelles, including		
all levels of organization	9	nucleus		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.			
Course Title	, ,			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement
(12) Organisms and	(D) differentiate between	(iv) differentiate between		
environments. The student	structure and function in plant	structure and function in plant		
knows that living systems at	and animal cell organelles,	cell organelles, including		
all levels of organization	including cell membrane, cell	cytoplasm		
demonstrate the	wall, nucleus, cytoplasm,	' '		
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				
(12) Organisms and	(D) differentiate between	(v) differentiate between		
environments. The student	structure and function in plant	` '		
knows that living systems at	and animal cell organelles,	cell organelles, including		
all levels of organization	including cell membrane, cell	mitochondrion		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				
(12) Organisms and	(D) differentiate between	(vi) differentiate between		
environments. The student	structure and function in plant	structure and function in plant		
knows that living systems at	and animal cell organelles,	cell organelles, including		
all levels of organization	including cell membrane, cell	chloroplast		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				
(12) Organisms and	(D) differentiate between	(vii) differentiate between		
environments. The student	structure and function in plant	structure and function in plant		
knows that living systems at	and animal cell organelles,	cell organelles, including		
all levels of organization	including cell membrane, cell	vacuole		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				
(12) Organisms and	(D) differentiate between	(viii) differentiate between		
environments. The student	structure and function in plant			
knows that living systems at	and animal cell organelles,	animal cell organelles,		
all levels of organization		including cell membrane		
demonstrate the	wall, nucleus, cytoplasm,			
complementary nature of	mitochondrion, chloroplast,			
structure and function. The	and vacuole			
student is expected to:				

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.					
Course Title						
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement		
(12) Organisms and	(D) differentiate between	(ix) differentiate between				
environments. The student	structure and function in plant	structure and function in				
knows that living systems at	and animal cell organelles,	animal cell organelles,				
all levels of organization	including cell membrane, cell	including nucleus				
demonstrate the	wall, nucleus, cytoplasm,					
complementary nature of	mitochondrion, chloroplast,					
structure and function. The	and vacuole					
student is expected to:						
(12) Organisms and	(D) differentiate between	(x) differentiate between				
environments. The student	structure and function in plant	structure and function in				
knows that living systems at	and animal cell organelles,	animal cell organelles,				
all levels of organization	including cell membrane, cell	including cytoplasm				
demonstrate the	wall, nucleus, cytoplasm,					
complementary nature of	mitochondrion, chloroplast,					
structure and function. The	and vacuole					
student is expected to:						
(12) Organisms and	(D) differentiate between	(xi) differentiate between				
environments. The student	structure and function in plant	structure and function in				
knows that living systems at	and animal cell organelles,	animal cell organelles,				
all levels of organization	including cell membrane, cell	including mitochondrion				
demonstrate the	wall, nucleus, cytoplasm,					
complementary nature of	mitochondrion, chloroplast,					
structure and function. The	and vacuole					
student is expected to:						
(12) Organisms and	(D) differentiate between	(xii) differentiate between				
environments. The student	structure and function in plant					
knows that living systems at	and animal cell organelles,	animal cell organelles,				
all levels of organization	including cell membrane, cell	including vacuole				
demonstrate the	wall, nucleus, cytoplasm,					
complementary nature of	mitochondrion, chloroplast,					
structure and function. The	and vacuole					
student is expected to:						
(12) Organisms and	(E) compare the functions of	(i) compare the functions of a				
environments. The student	a cell to the functions of	cell to the functions of				
knows that living systems at	organisms such as waste	organisms				
all levels of organization	removal					
demonstrate the						
complementary nature of						
structure and function. The						
student is expected to:						

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.				
Course Title		-			
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement	
(12) Organisms and	(F) recognize that according	(i) recognize that according to			
environments. The student	to cell theory all organisms are				
knows that living systems at	composed of cells and cells	composed of cells			
all levels of organization	carry on similar functions such				
demonstrate the	as extracting energy from food				
complementary nature of	to sustain life				
structure and function. The					
student is expected to:					
(12) Organisms and		(ii) recognize that according to			
environments. The student	to cell theory all organisms are				
knows that living systems at	composed of cells and cells	similar functions			
all levels of organization	carry on similar functions such				
demonstrate the	as extracting energy from food				
complementary nature of	to sustain life				
structure and function. The					
student is expected to:					
(13) Organisms and	(A) investigate how	(i) investigate how organisms		1	
environments. The student	organisms respond to external	•			
knows that a living organism	stimuli found in the	found in the environment			
must be able to maintain	environment such as				
balance in stable internal	phototropism and fight or flight				
conditions in response to					
external and internal stimuli.					
The student is expected to:					
(13) Organisms and	(B) describe and relate	(i) describe responses in			
environments. The student	responses in organisms that	organisms that may result			
knows that a living organism	may result from internal stimuli				
must be able to maintain	such as wilting in plants and	[plants and animals] to			
balance in stable internal	fever or vomiting in animals	maintain balance			
conditions in response to	that allow them to maintain	mantani balance			
external and internal stimuli.	balance				
The student is expected to:	Dalailos				
The student is expected to.				1	

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Subject	§112.19.Science, Grade 7, Beginning with School Year 2010-2011.				
Course Title					
TEKS (Knowledge and	Student Expectation	Breakout	Element	Subelement	
(13) Organisms and	(B) describe and relate	(ii) relate responses in			
environments. The student	responses in organisms that	organisms that may result			
knows that a living organism	may result from internal stimuli	from internal stimuli that allow			
must be able to maintain	such as wilting in plants and	[plants and animals] to			
balance in stable internal	fever or vomiting in animals	maintain balance			
conditions in response to	that allow them to maintain				
external and internal stimuli.	balance				
The student is expected to:					
(14) Organisms and	(A) define heredity as the				
environments. The student	passage of genetic				
knows that reproduction is a	instructions from one				
characteristic of living	generation to the next				
organisms and that the	generation				
instructions for traits are					
governed in the genetic					
material. The student is					
expected to:					
(14) Organisms and	(B) compare the results of				
environments. The student	uniform or diverse offspring				
knows that reproduction is a	from sexual reproduction or				
characteristic of living	asexual reproduction				
organisms and that the					
instructions for traits are					
governed in the genetic					
material. The student is					
expected to:					
(14) Organisms and	(C) recognize that inherited				
environments. The student	traits of individuals are				
knows that reproduction is a	governed in the genetic				
characteristic of living	material found in the genes				
organisms and that the	within chromosomes in the				
instructions for traits are	nucleus				
governed in the genetic					
material. The student is					
expected to:					

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