

	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011		

Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:		(iii) [know that], unlike hypotheses, scientific theories are well established explanations		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:		(iv) [know that], unlike hypotheses, scientific theories are highly reliable explanations		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:		(v) [know that scientific theories] may be subject to change as new areas of science are developed		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:		(vi) [know that scientific theories] may be subject to change as new technologies are developed		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(D) distinguish between scientific hypotheses and scientific theories			
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	 (i) follow investigative procedures, including making observations 		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	(ii) follow investigative procedures, including asking questions		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	(iii) follow investigative procedures, including formulating testable hypotheses		

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Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	 (iv) follow investigative procedures, including selecting equipment 		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	 (v) follow investigative procedures, including selecting technology 		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	(vi) plan and implement investigative procedures, including making observations		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	(vii) plan and implement investigative procedures, including asking questions		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	(viii) plan and implement investigative procedures, including formulating testable hypotheses		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(E) follow or plan and implement investigative procedures, including making observations, asking questions, formulating testable hypotheses, and selecting equipment and technology	(ix) plan and implement investigative procedures, including selecting equipment		

Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Elem@010 2011 (One Credit).	

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Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)		Breakout	Element	Subelement
	(F) collect data individually or collaboratively,	(v) calculate statistically relevant quantities		
uses scientific methods during				

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Course Title	§112.37. Environmental Systems, Beginning v	with School Year 2010 2011 (One Credit).			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement	
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(G) demonstrate the use of course apparatuses, equipment, techniques, and procedures, including meter sticks, rulers,	(ii) demonstrate the use of course apparatuses [and] equipment, including rulers buck(elishiipploid) dTf (\$84TTTE2311ATtpoppelik(pilseats)) dTf (\$84TTTE2311ATtpoppelik(pilseats)) dTf (bTd (disposfa 1997) - bTd (disposfa 1997) - bTd (blighter 1997)	old)Tj /T1_0 1 Tf ()Tj1 2 Tf tl[{0Tjde:3,7TJ 7 <u>D1c</u> 0ldu11ic3rf Tjto: ss7 .002 0 Tf 76j /Tj /	33006 TT2s c

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Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(G) demonstrate the use of course apparatuses, equipment, techniques, and procedures, including meter sticks, rulers, pipettes, graduated cylinders, triple beam balances, timing devices, pH meters or probes, thermometers, calculators, computers, Internet access, turbidity testing devices, hand magnifiers, work and disposable gloves, compasses, first aid kits, binoculars, field guides, water quality test kits or probes, soil test kits or probes, 100 foot appraiser's tapes, tarps, shovels, trowels, screens, buckets, and rock and mineral samples	(xii) demonstrate the use of course apparatuses [and] equipment, including hand magnifiers		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:	(G) demonstrate the use of course apparatuses, equipment, techniques, and procedures, including meter sticks, rulers, pipettes, graduated cylinders, triple beam balances, timing devices, pH meters or probes, thermometers, calculators, computers, Internet access, turbidity testing devices, hand magnifiers, work and disposable gloves, compasses, first aid kits, binoculars, field guides, water quality test kits or probes, soil test kits or probes, 100 foot appraiser's tapes, tarps, shovels, trowels, screens, buckets, and rock and mineral samples	(xiii) demonstrate the use of course apparatuses [and] equipment, including work gloves		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 		(xiv) demonstrate the use of course apparatuses [and] equipment, including disposable gloves		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(G) demonstrate the use of course apparatuses, equipment, techniques, and procedures, including meter sticks, rulers, pipettes, graduated cylinders, triple beam balances, timing devices, pH meters or probes, thermometers, calculators, computers, Internet access, turbidity testing devices, hand magnifiers, work and disposable thermomet ero rk	(xv) demonstrate the use of course apparatuses [and] equipment, including compasses		

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	with School Year 2010 2011 (One Credit).		
Student Expectation	Breakout	Element	Subelement
(G) demonstrate the use of course apparatuses, equipment, techniques, and procedures, including meterd1Tf(ii)/Tlaborato	(xviii) demonstrate the use of course apparatuses [and] equipment, including field 10/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf(0)0/DFf		Mit 10hif5ki()T)TT210&##0Ti0</td></tr><tr><td></td><td>ւ ին, որ «Հունիսի անչում է հատաների են հայտարերությունը մի մինչ մեր էր անչուն։ Ա</td><td>annologi kelekulannan naran merini biyun nara salah 19.</td><td>ща<u>то</u>гш элчда ја 1900-1900 1900</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td> §112.37. Environmental Systems, Beginning Student Expectation (G) demonstrate the use of course apparatuses, equipment, techniques, and </td><td>§112.37. Environmental Systems, Beginning with School Year 2010 2011 (One Credit).Student ExpectationBreakout(G) demonstrate the use of course apparatuses, equipment, techniques, and(xviii) demonstrate the use of course apparatuses [and] equipment, including field</td><td>§112.37. Environmental Systems, Beginning with School Year 2010 2011 (One Credit). Student Expectation Breakout (G) demonstrate the use of course (xviii) demonstrate the use of course</td></tr></tbody></table>

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Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:		(xxii) demonstrate the use of course apparatuses [and] equipment, including tarps		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 		(xxiii) demonstrate the use of course apparatuses [and] equipment, including shovels		

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Subject	Chapter 112. Science	Chapter 112. Science			
	§112.37. Environmental Systems, Beginning				
-	Student Expectation	Breakout	Element	Subelement	
(2) Scientific processes. The student					
uses scientific methods dur3月 J9.8650	тод/Т21Тf70.3811.622Td((2BDC/T11Tf6.s[8(B Б(сферзвыврадитырдултут(Т <u>т</u> 04к2 т 314915263	eginning) j/ laboratoryhe) j/ 1 <u>0</u> 1 f() j/ 21 i (39/244-49/0000	1.99301d(Skills))1j/1 <u>0</u> 11f(1j/1212.2540fié	ISkills)) j/1 <u>0</u> 1 f(j/12/D1 f4	
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Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	 (I) organize, analyze, evaluate, build models, make inferences, and predict trends from data 	(vi) predict trends from data		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(J) perform calculations using dimensional analysis, significant digits, and scientific notation	(i) perform calculations using dimensional analysis		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(J) perform calculations using dimensional analysis, significant digits, and scientific notation	(ii) perform calculations using significant digits		
 (2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to: 	(J) perform calculations using dimensional analysis, significant digits, and scientific notation	(iii) perform calculations using scientific notation		
(2) Scientific processes. The student uses scientific methods during laboratory and field investigations. The student is expected to:		(i) communicate valid conclusions supported by the data through [various] methods		
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. 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		
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. 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			

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Subject	Chapter 112. Science		
Course Title	§112.37.		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:		(vii) in all fields of science, evaluate scientific explanations by using logical reasoning		
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:		(viii) in all fields of science, evaluate scientific explanations by using experimental testing		
uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and	(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 processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	and critique scientific explanations by using	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations		

Subject	Chapter 112. Science	Chapter 112. Science				
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).				
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement		
uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. 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	(xi) in all fields of science, critique scientific explanations by using empirical evidence				
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. 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	(A) in all fields eva	uante s,∏hœja/ïā1I <u>te</u> st≬fīn6qng∓1.4		
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, eval 8asteia	kcel \$24 (02:011ot f(T) 20:09:07 j(d (T2) 20)e8:01(01:04) (T2)23, 20)	RAQ 19 29/2019184(2018269896260000006<u>0</u>)) 1 ((2.1.19<u>28</u>2001160((10164)5))	ĬŢġġŢġĦŊġĿŊŊŎŦĬŢĊĔĸ\$\$\$\$₩ijdQUDIQĬĬQĬĸŊ₩ŦĬĔŎŶŔĬQĬŶ		

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Course Title	§112.37. Environmental Systems, Beginning with School Year 2010 2011 (One Credit).				
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement	
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(C) draw inferences based on data related to promotional materials for products and services	(ii) draw inferences based on data related to promotional materials for services			
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of research on scientific thought, society, and the environment	(i) evaluate the impact of research on scientific thought			
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of research on scientific thought, society, and the environment	(ii) evaluate the impact of research on society			
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of research on scientific thought, society, and the environment	(iii) evaluate the impact of research on the environment			
(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(E) describe the connection between environmental science and future careers				

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Course Title	§112.37. Environmental Systems, Beginning with School Year 2010 2011 (One Credit).			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(A) identify native plants and animals using a dichotomous key	(ii) identify native animals using a dichotomous key		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(B) assess the role of native plants and animals within a local ecosystem and compare them to plants and animals in ecosystems within four other biomes	(i) assess the role of native plants within a local ecosystem		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(B) assess the role of native plants and animals within a local ecosystem and compare them to plants and animals in ecosystems within four other biomes	(ii) assess the role of native animals within a local ecosystem		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(B) assess the role of native plants and animals within a local ecosystem and compare them to plants and animals in ecosystems within four other biomes	(iii) compare [native plants] to plants in ecosystems within four other biomes		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(B) assess the role of native plants and animals within a local ecosystem and compare them to plants and animals in ecosystems within four other biomes	(iv) compare [native animals] to animals in ecosystems within four other biomes		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(G) predict how species extinction may alter the food chain and affect existing populations in an ecosystem	(ii) predict how species extinction may affect existing populations in an ecosystem		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(H) research and explain the causes of species diversity and predict changes that may occur in an ecosystem if species and genetic diversity is increased or reduced	(i) research the causes of species diversity		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(H) research and explain the causes of species diversity and predict changes that may occur in an ecosystem if species and genetic diversity is increased or reduced	(ii) explain the causes of species diversity		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(H) research and explain the causes of species diversity and predict changes that may occur in an ecosystem if species and genetic diversity is increased or reduced	(iii) predict changes that may occur in an ecosystem if species diversity is increased or reduced		
(4) Science concepts. The student knows the relationships of biotic and abiotic factors within habitats, ecosystems, and biomes. The student is expected to:	(H) research and explain the causes of species diversity and predict changes that may occur in an ecosystem if species and genetic diversity is increased or reduced	(iv) predict changes that may occur in an ecosystem if genetic diversity is increased or reduced		

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Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Exhe ୀ(ଗେଉଏମାନ୍ ପige and Skills)	Student		

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Course Title	§112.37. Environmental Systems, Beginning			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(C) document the use and conservation of both renewable and non renewable resources as they pertain to sustainability	(ii) document the use of non renewable resources as they pertain to sustainability		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(C) document the use and conservation of both renewable and non renewable resources as they pertain to sustainability	(iii) document the conservation of renewable resources as they pertain to sustainability		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(C) document the use and conservation of both renewable and non renewable resources as they pertain to sustainability	(iv) document the conservation of non renewable resources as they pertain to sustainability		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(D) identify renewable and non renewable resources that must come from outside an ecosystem such as food, water, lumber, and energy	(i) identify renewable resources that must come from outside an ecosystem		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(D) identify renewable and non renewable resources that must come from outside an ecosystem such as food, water, lumber, and energy	(ii) identify non renewable resources that must come from outside an ecosystem		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(E) analyze and evaluate the economic significance and interdependence of resources within the environmental system	(i) analyze the economic significance of resources within the environmental system		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(E) analyze and evaluate the economic significance and interdependence of resources within the environmental system	(ii) evaluate the economic significance of resources within the environmental system		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(E) analyze and evaluate the economic significance and interdependence of resources within the environmental system	(iii) analyze the interdependence of resources within the environmental system		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	(E) analyze and evaluate the economic significance and interdependence of resources within the environmental system	(iv) evaluate the interdependence of resources within the environmental system		
(5) Science concepts. The student knows the interrelationships among the resources within the local environmental system. The student is expected to:	management methods such as reduction, reuse, recycling, and composting on resource	(i) evaluate the impact of waste management methods on resource availability		

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	§112.37. Environmental Systems, Beginning v			
	•	Breakout	Element	Subelement
knows the sources and flow of energy through an environmental system.	the geosphere, hydrosphere, cryosphere,	(xi) identify interactions among [the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere]		
knows the sources and flow of energy through an environmental system. The student is expected to:		(i) describe renewable energy derived from natural and alternative sources		
knows the sources and flow of energy through an environmental system. The student is expected to:		(ii) describe non renewable energy derived from natural and alternative sources		
knows the sources and flow of energy through an environmental system. The student is expected to:	(B) describe and compare renewable and non renewable energy derived from natural and alternative sources such as oil, natural gas, coal, nuclear, solar, geothermal, hydroelectric, and wind	(iii) and compare ren ewabD2 63a82642661 d@	ແຂນຫຼາໃນຢາເອງ native)Tj / 1.edative	
nce concepts. The student he sources and flow of energy an environmental system. defttds(faquetitedion/T1_0 1 Tf ()Tj /TT2	2 1 Tf 2.451 8.69 Td (natural)cievection/T1_0	. Tf ()Tj /TT2 1 Tf 2.45106 0 Td (describe)Tj	/T1_0 1 Tf ()Tj /TT2 1 Tf 3.664 0 Tradiat	tionted)Tj /T1_0 1 Tf ()Tj /T

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
	(C) explain the flow of energy in an ecosystem, including conduction, convection, and radiation	(ii) explain the flow of energy in an ecosystem, including convection		
(6) Science concepts. The student knows the sources and flow of energy through an environmental system. The student is expected to:	(C) explain the flow of energy in an ecosystem, including conduction, convection, and radiation	(iii) explain the flow of energy in an ecosystem, including radiation		
(6) Science concepts. The student knows the sources and flow of energy through an environmental system. The student is expected to:	(D) investigate and explain the effects of energy transformations in terms of the laws of thermodynamics within an ecosystem	(i) investigate the effects of energy transformations in terms of the laws of thermodynamics within an ecosystem		
	(D) investigate and explain the effects of energy transformations in terms of the laws of thermodynamics within an ecosystem	(ii) explain the effects of energy transformations in terms of the laws of thermodynamics within an ecosystem		
(6) Science concepts. The student knows the sources and flow of energy through an environmental system. The student is expected to:	(E) investigate and identify energy interactions in an ecosystem	(i) investigate energy interactions in an ecosystem		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(6) Science concepts. The student knows the sources and flow of energy through an environmental system. The student is expected to:	(E) investigate and identify energy interactions in an ecosystem	(ii) identify energy interactions in an ecosystem		
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(A) relate carrying capacity to population dynamics			
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(B) calculate birth rates and exponential growth of populations	(i) calculate birth rates of populations		
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(B) calculate birth rates and exponential growth of populations	(ii) calculate exponential growth of populations		
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(C) analyze and predict the effects of non renewable resource depletion	(i) analyze the effects of non renewable resource depletion		

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Subject	Chapter 112. Science				
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement	
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(C) analyze and predict the effects of non renewable resource depletion	(ii) predict the effects of non renewable resource depletion			
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(D) analyze and make predictions about the impact on populations of geographic locales due to diseases, birth and death rates, urbanization, and natural events such as migration and seasonal changes	(i) analyze the impact on populations of geographic locales due to diseases			
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:		(ii) analyze the impact on populations of geographic locales due to birth rates ecosyster student is expected to:	(D) analyze and mu2()Tju2()T	uTf()Tj / T21Tf2.4560Td(pre	dictions)T
(7) Science concepts. The student knows the relationship between carrying capacity and changes in populations and ecosystems. The student is expected to:	(D) analyze and make predictions about the impact on populations of geographic locales due to diseases, birth and death rates, urbanization, and natural events such as migration and seasonal changes	(iii9713B (sbuah) g i gi71 <u>0</u> 1Tf()Tj7T21Tf2(analyze)T	Ĵ71 <u>0</u> 1Tf()Tj7T21Tf3.2840Td(and)Tj71 <u>0</u> 1Tf()	Tj ∦ T21Tf1.5840Td(impact)Tj	771 <u>0</u> 1Tf()

Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).		
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(8) Science concepts. The student knows that environments change naturally. The student is expected to:	(C) examine how natural processes such as succession and feedback loops restore habitats and ecosystems	(ii) examine how natural processes restore ecosystems		
(8) Science concepts. The student knows that environments change	impact weather conditions, including El Niño	(i) describe how temperature inversions impact weather conditions, including El Niño		
naturally. The student is expected to:	and La Niña oscillations	oscillations		
(8) Science concepts. The student knows that environments change naturally. The student is expected to:		(ii) describe how temperature inversions impact weather conditions, including La Niña oscillations		
(8) Science concepts. The student knows that environments change naturally. The student is expected to:		(i) analyze the impact of temperature inversions on global warming		
(8) Science concepts. The student knows that environments change naturally. The student is expected to:		(ii) analyze the impact of temperature inversions on ice cap melting		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(9) Science concepts. The student				

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
	(C) examine the concentrations of air, soil, and water pollutants using appropriate units	(i) examine the concentrations of air pollutants using appropriate units		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(C) examine the concentrations of air, soil, and water pollutants using appropriate units	(ii) examine the concentrations of soil pollutants using appropriate units		
	(C) examine the concentrations of air, soil, and water pollutants using appropriate units	(iii) examine the concentrations of water pollutants using appropriate units		
on the environment. The student is	(D) describe the effect of pollution on global warming, glacial and ice cap melting, greenhouse effect, ozone layer, and aquatic viability	(i) describe the effect of pollution on global warming		
		(ii) describe the effect of pollution on glacial melting		

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TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(D) describe the effect of pollution on global warming, glacial and ice cap melting, greenhouse effect, ozone layer, and aquatic viability	(iii) describe the effect of pollution on ice cap melting		
(9) Science concepts. The student	(D) describe the effect of pollution on global	(iv) describe the effect of pollution on		
knows the impact of human activities on the environment. The student is expected to:	warming, glacial and ice cap melting, greenhouse effect, ozone layer, and aquatic viability	greenhouse effect		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(D) describe the effect of pollution on global warming, glacial and ice cap melting, greenhouse effect, ozone layer, and aquatic viability	(v) describe the effect of pollution on ozone layer		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(D) describe the effect of pollution on global warming, glacial and ice cap melting, greenhouse effect, ozone layer, and aquatic viability	(vi) describe the effect of pollution on aquatic viability		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:		(i) evaluate the effect of human activities, including habitat restoration projects, on the environment		

Subject	Chapter 112. Science				
Course Title	§112.37. Environmental Systems, Beginning with School Year 2010 2011 (One Credit).				
TEKS (Knowledge and Skills) (9) Science concepts. The student knows the impact of human activities		Breakout	Element	Subelement	
on the environment. The student is expected to:					

Subject	Chapter 112. Science			
Course Title	§112.37. Environmental Systems, Beginning			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(E) evaluate the effect of human activities, including habitat restoration projects, species preservation efforts, nature conservancy groups, hunting, fishing, ecotourism, all terrain vehicles, and small personal watercraft, on the environment	(vii) evaluate the effect of human activities, including all terrain vehicles, on the environment		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(E) evaluate the effect of human activities, including habitat restoration projects, species preservation efforts, nature conservancy groups, hunting, fishing, ecotourism, all terrain vehicles, and small personal watercraft, on the environment	(viii) evaluate the effect of human activities, including small personal watercraft, on the environment		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(F) evaluate cost benefit trade offs of commercial activities such as municipal development, farming, deforestation, over harvesting, and mining	(i) evaluate cost benefit trade offs of commercial activities		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(G) analyze how ethical beliefs can be used to influence scientific practices such as methods for increasing food production	(i) analyze how ethical beliefs can be used to influence scientific practices		
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:	(H) analyze and evaluate different views on the existence of global warming	(i) analyze different views on the existence of global warming		

Subject	Chapter 112. Science			
Course Title	§112.37. Environmental			

Texas Education Agency		Breakout Instrument		Proclamation 2014	
Subject	Chapter 112. Science				
Course Title	§112.37. Environmental Systems, Beginning	with School Year 2010 2011 (One Credit).			
TEKS (Knowledge and Skills)			Element	Subelement	
(9) Science concepts. The student knows the impact of human activities on the environment. The student is expected to:		epts. The student ct of human activities hent. The student is	rledge Science concepts. The stude knows the impact of human act on the environment. The stude expected to:	ivities	co2Tj4

Texas Education Agency

Breakout Instrument

Subject	hapter 112. Science				1
Course Title	§112.37. Environmental Systems, Beginning	112.37. Environmental Systems, Beginning with School Year 2010 2011 (One Credit).			
TEKS (Knowledge and Skills)	Student Expectation	Breakout	Element	Subelement	1
knows the impact of human activities		(iv) analyze present international protocols T	37.6iJ>>BDC /TT0 1 Tf -461 TTT2 1	Tf 3.0aTj /TTCID 13 >>BD)C8 3.0a