#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
1	(1) Scientific investigation and reasoning.	(A) demonstrate safe practices during	(i) demonstrate safe	item Number	Component	Learning component Description	Assessment component bescription
	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:	laboratory and field investigations as outlined in the Texas Safety Standards	practices during laboratory investigations as outlined in the Texas Safety Standards	TX2_USSAN200102	The Safety of Classroom Investigations (TX2_USSAN200102)	The Animation demonstrates safe practices during classroom investigations, as described in the Texas Safety Standards.	The Question-Answer Sheet asks students questions that assess their ability to demonstrate safe practices during classroom investigations, as described in the Texas Safety Standards.
2	(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:	(A) demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards	(i) demonstrate safe practices during laboratory investigations as outlined in the Texas Safety Standards	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	In the Enrichment Sheet, students learn safe practices during laboratory investigations, as described in the Texas Safety Standards.	In the Enrichment Sheet, students are asked questions in which they must demonstrate safe practices during laboratory investigations, as described in the Texas Safety Standards.
3	(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:	(A) demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards	(i) demonstrate safe practices during laboratory investigations as outlined in the Texas Safety Standards	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	The Activity Object demonstrates safe practices during laboratory investigations, as described in the Texas Safety Standards.	In the Activity Sheet, students are asked questions in which they must demonstrate safe practices during laboratory investigations, as described in the Texas Safety Standards.
4	(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:	(A) demonstrate safe practices during laboratory and field investigations as outlined in the Texas Safety Standards	(ii) demonstrate safe practices during field investigations as outlined in the Texas Safety Standards	TX2_USSAN200110	The Safety of Outdoor Investigations (TX2_USSAN200110)	The Animation demonstrates safe practices during field investigations, as outlined in the Texas Safety Standards.	In the Question-Answer Sheet, student are assessed on safety procedures for field investigations,\as outlined in the Texas Safety Standards.
5	(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:	(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials	 (i) practice appropriate use of resources, including disposal, reuse, or recycling of materials 	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	After clicking on the unsafe trash can in Part 3 of the Activity Object, students are presented with a description of the proper disposal or recycling of materials.	
6	(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:	(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials	 (i) practice appropriate use of resources, including disposal, reuse, or recycling of materials 	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 1 teaches students the appropriate use of resources, including disposal, reuse, or recycling of materials.	Enrichment Sheet 1 assesses student understanding of appropriate use of resources, including disposal, reuse, or recycling of materials.
7	(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:	(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials	(ii) practice appropriate conservation of resources, including disposal, reuse, or recycling of materials	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	In Part 3 of the Activity Object, students are presented with a description of appropriate conservation of resources, including disposal, reuse, or recycling of materials.	
8	(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:	(B) practice appropriate use and conservation of resources, including disposal, reuse, or recycling of materials	(ii) practice appropriate conservation of resources, including disposal, reuse, or recycling of materials	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 1 teaches students about the appropriate conservation of resources, including disposal, reuse, or recycling of materials.	Enrichment Sheet 1 assesses student understanding of the appropriate conservation of resources, including disposal, reuse, or recycling of materials.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Itom Numbor	Component	Learning Component Description	According to Component Description
# 9	(2) Scientific investigation and reasoning.	(A) plan and implement comparative	(i) plan comparative	Item Number	Component	Learning Component Description	Assessment Component Description
5	The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	investigations by making observations	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students plan comparative investigations by making observations on hurricane formation.	In the Investigation Sheet, students are expected to plan comparative investigations by making observations.
10	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM180204	Introduction to Classification (TX2_USSSM180204)	In the Activity Object, students plan comparative investigations by making observations.	
11	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students plan comparative investigations on plant and animal cells by making observations.	
12	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM180202	Classification of Animals (TX2_USSSM180202)	In the Activity Object, students plan comparative investigations by making observations.	
13	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students plan comparative investigations by asking well- defined questions about hurricane formation.	In the Investigation Sheet, students are expected to plan comparative investigations by asking well-defined questions.
14	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students plan comparative investigations by using appropriate equipment on hurricane formation.	In the Investigation Sheet, students are expected to plan comparative investigations by using appropriate equipment.
15	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students plan comparative investigations by using appropriate equipment.	
16	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students plan comparative investigations by using appropriate technology to study hurricane formation.	In the Investigation Sheet, students are expected to plan comparative investigations by using appropriate technology.
17	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students implement comparative investigations by making observations on hurricane formation.	In the Investigation Sheet, students are expected to implement comparative investigations by making observations.
18	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM180204	Introduction to Classification (TX2_USSSM180204)	In the Activity Object, students implement comparative investigations by making observations.	
19	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students implement comparative investigations on plant and animal cells by making observations.	

TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
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The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	comparative investigations by making observations	TX2_USSSM180202	Classification of Animals (TX2_USSSM180202)	In the Activity Object, students implement comparative investigations by making observations.	
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students implement comparative investigations by asking well- defined questions about hurricane formation.	In the Investigation Sheet, students are expected to implement comparative investigations by asking well-defined questions.
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students implement comparative investigations by using appropriate equipment to study hurricane formation.	In the Investigation Sheet, students are expected to implement comparative investigations by using appropriate equipment.
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students implement comparative investigations by using appropriate equipment.	
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)	In the Activity Object, students implement comparative investigations by using appropriate technology on hurricane formation.	In the Investigation Sheet, students are expected to implement comparative 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:	(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	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students plan descriptive investigations by making observations on sorting and identifying animal fossils.	In the Investigation Sheet, students are expected to plan descriptive investigations by making observations.
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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 	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students plan descriptive investigations by asking well- defined questions on sorting and identifying animal fossils.	In the Investigation Sheet, students are expected to plan descriptive investigations by asking well-defined questions.
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(A) plan and implement comparative and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	 (xi) plan descriptive investigations by using appropriate equipment 	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students plan descriptive investigations by using appropriate equipment to sort and identify animal fossils.	In the Investigation Sheet, students are expected to plan descriptive investigations by using appropriate equipment.
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(A) plan and implement comparative and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	 (xi) plan descriptive investigations by using appropriate equipment 	TX2_USSSM050101	Separation of Mixtures (TX2_USSSM050101)	In the Activity Object, students plan descriptive investigations by using appropriate equipment to separate mixtures.	
(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(A) plan and implement comparative and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	 (xii) plan descriptive investigations by using appropriate technology 	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students plan descriptive investigations by using appropriate technology to sort and identify animal fossils.	In the Investigation Sheet, students are expected to plan 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:	(A) plan and implement comparative and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	(xiii) implement descriptive investigations by making observations	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students implement descriptive investigations by making observations on sorting and identifying animal fossils.	In the Investigation Sheet, students are expected to implement descriptive investigations by making observations.
	 (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 investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. 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The student uses scientific inquiry methods during laboratory an	 (2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. (2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. (3) plan and implement comparative and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology (2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. 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	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. (A) plan and implement comparative making observations, asking well- differed questions, and using appropriate equipment and technology (v) implement comparative investigations by making descriptive investigations. (2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student uses scientific inquiry methods during laboratory and field investigations. (A) plan and implement comparative making observations, asking well- defined questions, a	(2) Scientific investigation and reasoning. The student use scientific injury methods during laboratory and field investigations. The student is expected to: (A) plan and implement comparative appropriate equipment and technology (V) implement comparative appropriate equipment and technology Tx2_USSSM180202 (2) Scientific investigation and reasoning. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student use scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientific injury methods during laboratory and field investigations. The student uses scientifi	(2) Scientific investigation and reasoning that subcrature yand like investigations that appropriate equipment and secretive newsignitons by made secretive newsignitons by making appropriate equipment and secretive appropriate equipment appropriate equipment and secretive appropriate equipment and secretive appropriate equipment and secretive appropriate equipment and secretive appropriate equipment appropriate equipment and secretive appropriate equipment and technology appropriate equipmen	(a) Solution (b) plot and replement comparisons (c) plot and replement comparisons

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
31	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(A) plan and implement comparative and descriptive investigations by making observations, asking well- defined questions, and using appropriate equipment and technology	(xiv) implement descriptive investigations by asking well-defined questions	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students implement descriptive investigations by asking well- defined questions about sorting and identifying animal fossils.	In the Investigation Sheet, students are expected to implement descriptive investigations by asking well-defined questions.
32	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students implement descriptive investigations by using appropriate equipment to sort and identify animal fossils.	In the Investigation Sheet, students are expected to implement descriptive investigations by using appropriate equipment.
33	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM050101	Separation of Mixtures (TX2_USSSM050101)	In the Activity Object, students implement descriptive investigations by using appropriate equipment to separate mixtures.	
34	(2) Scientific investigation and reasoning. The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	(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	TX2_USSSM180102	Sorting and Identifying Animal Fossils (TX2_USSSM180102)	In the Activity Object, students implement descriptive investigations by using appropriate technology to sort and identify animal fossils.	In the Investigation Sheet, students are expected to implement descriptive investigations by using appropriate technology.
35	(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 	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students design experimental investigations by making observations on phototropism in plants.	
36	(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	TX2_USSSM130406	Hurricane Formation (TX2_USSSM130406)		In Section 1 of the Activity Object, after completing the main activity, in which the likelihood of several hurricanes is estimated using a simulator, the student enters "free mode." In free mode, students can set any parameter of the simulator to see what happens. This is used in conjunction with the Investigation Sheet to allow students to plan and implement a comparative investigation. In the Investigation Sheet, students are expected to design experimental investigations by making observations made with the simulator.
37	(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 	TX2_USSXP160109	Osmosis (TX2_USSXP160109)	In the Activity Object, students design experimental investigations by making observations on osmosis.	
38	(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 	TX2_USSXP010404	Conservation of Mass in Chemical Reactions (TX2_USSXP010404)	In the Activity Object, students design experimental investigations by making observations on the conservation of mass in different chemical reactions.	
39	(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	 (ii) design experimental investigations by asking well-defined questions 	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students design experimental investigations by asking well- defined questions about phototropism in plants.	In the Investigation Sheet, students are expected to design experimental investigations by asking well-defined questions.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
40	(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	 (ii) design experimental investigations by asking well-defined questions 	TX2_USSXP160101	Plants' Needs for Photosynthesis (TX2_USSXP160101)	In the Activity Object, students design experimental investigations by asking well- defined questions about photosynthesis.	
41	(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	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students design experimental investigations by formulating testable hypotheses on phototropism in plants.	In the Investigation Sheet, students are expected to design experimental investigations by formulating testable hypotheses.
42	(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	 (iv) design experimental investigations by using appropriate equipment 	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students design experimental investigations by using appropriate equipment to study phototropism in plants.	In the Investigation Sheet, students are expected to design experimental investigations by using appropriate equipment.
43	(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	 (iv) design experimental investigations by using appropriate equipment 	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students design experimental investigations by using appropriate equipment to study homeostasis.	
44	(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	 (v) design experimental investigations by using appropriate technology 	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students design experimental investigations by using appropriate technology to study phototropism in plants.	In the Investigation Sheet, students are expected to design experimental investigations by using appropriate technology.
45	(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	 (v) design experimental investigations by using appropriate technology 	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students design experimental investigations by using appropriate technology to study homeostasis.	
46	(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	(vi) implement experimental investigations by making observations	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students implement experimental investigations by making observations on phototropism in plants.	In the Activity Object, students implement experimental investigations by making observations on phototropism in plants. During their investigations in the Activity Object, students record the data from their observations in the Investigation Sheet, where it is assessed.
47	(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	(vi) implement experimental investigations by making observations	TX2_USSXP160109	Osmosis (TX2_USSXP160109)	In the Activity Object, students implement experimental investigations by making observations on osmosis.	
48	(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	(vi) implement experimental investigations by making observations	TX2_USSXP010404	Conservation of Mass in Chemical Reactions (TX2_USSXP010404)	In the Activity Object, students implement experimental investigations by making observations on the conservation of mass in different chemical reactions.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
49	(2) Scientific investigation and reasoning.	(B) design and implement experimental	(vii) implement	Reff Number	Oompohent	Learning Component Description	Absessment component Description
	The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology	experimental investigations by asking well-defined questions	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students implement experimental investigations by asking well- defined questions about phototropism in plants.	In the Investigation Sheet, students are expected to implement experimental investigations by asking well-defined questions.
50	(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	(vii) implement experimental investigations by asking well-defined questions	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Lab Sheet, students are taught to ask well-defined questions.	In the Lab Sheet,, students are asked to write out their well-defined questions.
51	(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	(vii) implement experimental investigations by asking well-defined questions	TX2_USSXP160101	Plants' Needs for Photosynthesis (TX2_USSXP160101)	In the Activity Object, students implement experimental investigations by asking well- defined questions about photosynthesis.	
52	(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	(viii) implement experimental investigations by formulating testable hypotheses	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students implement experimental investigations by formulating testable hypotheses about phototropism in plants.	Q1 of the "Design an Experimental Investigation" section of the Investigation Sheet asks students to implement experimental investigations by formulating testable questions/hypotheses.
53	(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	(viii) implement experimental investigations by formulating testable hypotheses	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Lab Sheet,, students implement an investigation that involves the formulation of a testable hypothesis.	In the Lab Sheet,, students are assessed on their ability to formulate a testable hypothesis.
54	(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	(ix) implement experimental investigations by using appropriate equipment	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students implement experimental investigations by using appropriate equipment to study phototropism in plants.	
55	(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	(ix) implement experimental investigations by using appropriate equipment	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Lab Sheet,, students implement an investigation by using appropriate equipment: scissors, protractors, rulers, and lamps.	In the Lab Sheet,, students make a sketch of their experimental setup, and then record data collected with the aid of appropriate equipment: the ruler, protractors, and lamps.
56	(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	(ix) implement experimental investigations by using appropriate equipment	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students implement experimental investigations by using appropriate equipment to study homeostasis: a microscope, etc	
57	(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	(x) implement experimental investigations by using appropriate technology	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students implement experimental investigations by using appropriate technology to study phototropism in plants.	In the Investigation Sheet, students are expected to implement experimental investigations by using appropriate technology.

#	FEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
58	(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	(x) implement experimental investigations by using appropriate technology	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Lab Sheet,, students implement an investigation with the aid of appropriate technology: a calculator.	Q1 of the "Design an Experimental Investigation" section of the Lab Sheet requires students to use a calculator to record the results of their investigations. Students are asked to create a graph.
59	(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	(i) collect data using the International System of Units (SI)	TX2_USSXP040201	Heat Conduction (TX2_USSXP040201)	In the Activity Object, students collect data using the International System of Units (SI).	
60	(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	(i) collect data using the International System of Units (SI)	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students collect data using the International System of Units (SI).	In the Activity Sheet, students enter the data that they collect using SI units (g, ml).
61	(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	(i) collect data using the International System of Units (SI)	TX2_USSSM200102	SI Units and Dimensional Analysis (TX2_USSSM200102)	In the Activity Object, students collect data using the International System of Units (SI).	
62	(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	(i) collect data using the International System of Units (SI)	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, students collect data using the International System of Units (SI).	In the Activity Sheet, students are assessed on the data that they collect using SI units (N).
63	(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	(i) collect data using the International System of Units (SI)	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Lab Sheet, students use a metric ruler to measure the distance that food coloring travels up a celery stalk.	In the Lab Sheet, students use a metric ruler to measure the distance that food coloring travels up a celery stalk, and then they are assessed on the data they record in SI units (cm) in a table.
64	(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	TX2_USSSM160105		In the Part 2 of the Activity Object, students collect data using qualitative means.	In the Part 2 of the Activity Object, students collect data using qualitative means. The data is entered into a chart within the Activity Object, based on student responses. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
65	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	In the Lab Sheet, students use a spectroscope to collect data on the spectral lines of different substances, and then they record this data as a drawing by using colored pencils.	In the Lab Sheet, students use a spectroscope to collect data on the spectral lines of different substances. Students are assessed on a drawing they create with colored pencils. The drawing is created from the data that the students record with the spectroscope.
66	(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	TX2_USSSM130101	Drilling into Groundwater (TX2_USSSM130101)	In the Activity Object, students collect data using qualitative means.	
67	(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	TX2_USSXP160301		In the Activity Object, students collect data using qualitative means.	
68	(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	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students collect data on electrical conductivity using qualitative means.	In the Activity Sheet, students enter the qualitative data that they collected on the conductivity of substances, as "yes" or "no" in a table.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
 69	(2) Scientific investigation and reasoning.	(C) collect and record data using the	(ii) collect data using	Rom Humber		Loanning component Description	In the Activity Sheet, students record data
	The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers	qualitative means	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, students collect data about whether or not an object moves under a certain combination of forces.	that they collect for the movement of objects under varying forces. The data is entered into a table with "yes" or "no" responses.
70	(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	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	that they observe in different water	In the Lab Sheet, students use pH test strips to collect data on the color changes in different solutions. Students then record their observations in an assessable table.
71	(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)	TX2_USSXP040201	Heat Conduction (TX2_USSXP040201)	In the Activity Object, students record data using the International System of Units (SI).	In the Lab Sheet, students are asked to record the data from their observations by using SI units.
72	(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)	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students record data using the International System of Units (SI).	In the Activity Sheet, students record the data that they collect using SI units (g, ml).
73	(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)	TX2_USSSM200102	SI Units and Dimensional Analysis (TX2_USSSM200102)	In the Activity Object, students record data using the International System of Units (SI).	
74	(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)	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, students record data using the International System of Units (SI).	In the Activity Sheet, students record the data that they collect using SI units (N).
75	(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)	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	coloring travels up a celery stalk. Students	In the Lab Sheet, students use a metric ruler to measure the distance that food coloring travels up a celery stalk. Students then record their data (in cm) in a table.
76	(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	(iv) record data using qualitative means	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students record data using qualitative means.	In Part 2 of the Activity Object, students collect and then record qualitative data in a chart within the Activity Object. This data is recorded based on student responses that are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
77	(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	(iv) record data using qualitative means	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)		In the Activity Sheet, students record qualitative data that they collected in the Activity Object, on the conductivity of substances. Responses are entered as "yes" or "no" in a table.
78	(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	(iv) record data using qualitative means	TX2_USSSM130101	Drilling into Groundwater (TX2_USSSM130101)	In the Activity Object, students record data using qualitative means.	
79	(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	(iv) record data using qualitative means	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	spectroscope to see spectral lines of different substances, and then they record this data as a drawing using colored pencils.	In the Lab Sheet, students use a spectroscope to see spectral lines of different substances. Students are assessed on a drawing they create with colored pencils. The drawing is a record of the data that the students collected with the spectroscope.
80	(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	(iv) record data using qualitative means	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students record data using qualitative means.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
<i></i> 81	(2) Scientific investigation and reasoning.	(C) collect and record data using the	(iv) record data using	Ren Humber	Component		In the Lab Sheet, students use pH test
	The student uses scientific inquiry methods during laboratory and field investigations. The student is expected to:	International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers	qualitative means	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students use pH test strips to observe color changes in different water samples. The data that they collect is recorded in a table.	strips to collect data on color changes observed in different solutions. Students then record their data in an assessable table.
82	(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	(i) construct tables using repeated trials and means to organize data	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students construct tables using repeated trials and means to organize data.	In the Activity Sheet, students create a table from repeated trials, then average data to find patterns.
83	(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	(i) construct tables using repeated trials and means to organize data	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, student experiments include repeated trials with various combinations of weights. A table of data is constructed from these trials.	In the Activity Sheet, students record the data that they collected from their trials during the Activity Object, in a table.
84	(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	(i) construct tables using repeated trials and means to organize data	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Lab Sheet, students perform an experiment in which they use repeated trials and means to organize data. Students then construct a table to record their data.	In the Lab Sheet, students construct an assessable table from the data that they collected using repeated trials and means.
85	(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	(ii) construct tables using repeated trials and means to identify patterns	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students construct tables using repeated trials and means to identify patterns.	In the Activity Sheet, students construct a table from the data they collected using repeated trials, then the students average data to find patterns.
86	(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	(ii) construct tables using repeated trials and means to identify patterns	TX2_USSXP010404	Conservation of Mass in Chemical Reactions (TX2_USSXP010404)	In the Activity Object, students construct tables using repeated trials and means to identify patterns on the conservation of mass in different chemical reactions.	
87	(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	(ii) construct tables using repeated trials and means to identify patterns	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	with various combinations of weights. Students then construct a table of data from the repeated trials. Patterns in the	In the Activity Sheet, students record the data that they collected from their repeated trials in the Activity Object, in a table. Students then use patterns in this data to answer a question about the relationship between force and motion.
88	(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	(ii) construct tables using repeated trials and means to identify patterns	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Lab Sheet, students construct tables using repeated trials and means to identify patterns.	In the Lab Sheet, students are assessed on their ability to accurately construct tables using repeated trials and means to identify patterns.
89	(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	(iii) construct graphs using repeated trials and means to organize data	TX2_USSSM190301	Graphical Visualization of Air Pollution (TX2_USSSM190301)	In the Activity Object, students construct graphs using repeated trials and means to organize data.	
90	(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	(iii) construct graphs using repeated trials and means to organize data	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Lab Sheet, students construct graphs using repeated trials and means to organize data.	In the Lab Sheet, students are assessed on their ability to construct graphs using repeated trials and means to organize data
91	(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	TX2_USSSM190301	Graphical Visualization of Air Pollution (TX2_USSSM190301)	In the Activity Object, students construct graphs using repeated trials and means to identify patterns.	In the Activity Sheet, students record data from the repeated trials in the Activity Object, and explain the purpose and utility of graphs to identify patterns.
92	(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	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Lab Sheet, students construct graphs using repeated trials and means to identify patterns.	In the Lab Sheet, students are assessed on their ability to construct graphs using repeated trials and means to identify patterns.
93	(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 	TX2_USSAN080204	Motion Graph of Constant Velocity (TX2_USSAN080204)	The Animation shows students how to construct graphs and identify patterns from the data.	In the Question-Answer Sheet, students construct a motion graph from data in a table, and then students interpret the pattern shown in the graph.

#	TEKS (Knowledge and Skills)		Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
94	(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	TX2_USSSM080202	Truck On: Position-Time and Velocity- Time Graphs (TX2_USSSM080202)	In Part 1 of the Activity Object, students can use various trials to construct graphs of a moving vehicle in order to identify patterns.	In the Activity Object, students identify patterns from the graphs that they construct using the data from a moving vehicle. While building the graphs, their responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
95	(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	(i) analyze data to formulate reasonable explanations	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students analyze data to formulate reasonable explanations.	In the Activity Sheet, students complete a table in which organisms are classified as either prokaryotes or eukaryotes based on various analyses performed by the students. Students then analyze this data, taken from Section 2 of the Activity Object, to formulate reasonable explanations.
96	(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	(i) analyze data to formulate reasonable explanations	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	In the Lab Sheet, students use a spectroscope to see spectral lines of different substances. Students then analyze this data to conclude that all elements have a unique spectral pattern.	In the Lab Sheet, students use a spectroscope to see spectral lines of different substances. Students then analyze this data to conclude that all elements have a unique spectral pattern. They are then assessed on their explanation of how scientists can determine which elements compose stars.
97	(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	(i) analyze data to formulate reasonable explanations	TX2_USSSM160111	Investigating Photosynthesis with Van Helmont (TX2_USSSM160111)	In the Activity Object, students analyze data to formulate reasonable explanations about photosynthesis.	In the Activity Object, students analyze data to formulate reasonable explanations about photosynthesis. Students provide responses with regard to their explanations, and these responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
98	(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	(i) analyze data to formulate reasonable explanations	TX2_USSSM160112	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_USSSM160112)	In the Activity Object, students analyze data to formulate reasonable explanations.	In the Activity Object, students analyze data to formulate reasonable explanations about photosynthesis. Students provide responses with regard to their explanations, and these responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
99	(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	(i) analyze data to formulate reasonable explanations	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Lab Sheet, students measure the distance that food coloring travels up a celery stalk under different conditions. Students then analyze the data to decide if it supports the theory of evapotranspiration.	In the Lab Sheet, students measure the distance that food coloring travels up a celery stalk under different conditions. Students then analyze the data to decide if it supports the theory of evapotranspiration.
100	(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	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students analyze data about cells and organisms to communicate valid conclusions supported by the data.	In the Activity Sheet, students complete a table in which organisms are classified as either prokaryotes or eukaryotes. Students classify the organisms based on various analyses they perform on the data that they collected in Section 2 of the Activity Object.
101	(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 	TX2_USSAN080104	The Application of Newton's Laws of Motion (TX2_USSAN080104)	In the Investigation Sheet, students analyze data from an investigation and form conclusions supported by the data.	In the Investigation Sheet, students analyze experimental data that they enter in a table. Then students form conclusions about how their data relates to, and is supported by, Newton's law of inertia.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
102	(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	(iii) analyze data to predict trends	TX2_USSSM080101	The Concept of Inertia (TX2_USSSM080101)	In Part 2 of the Activity Object, students slide a block down inclined planes with varying degrees of surface roughness and make predictions based on analyzing trends in the data.	
103	(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	(iii) analyze data to predict trends	TX2_USSSM080101	The Concept of Inertia (TX2_USSSM080101)	In the Investigation Sheet, students record data from their investigations in a table and then analyze it in order to predict trends.	In the Investigation Sheet, students record data from their investigations in a table, and then the students are assessed on their ability to analyze the data to predict trends.
104	(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	(iii) analyze data to predict trends	TX2_USSXP010201	The Density of Marbles (TX2_USSXP010201)	In the Activity Object, students use several different quantities of marbles to measure both mass and volume. By analyzing the data, students predict trends to decide if density varies within substances, or between them.	In the Activity Sheet, students are assessed on their ability to predict trends from measured data.
105	(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 	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students analyze scientific explanations by using empirical evidence.	In the Investigation Sheet, students are asked to analyze scientific explanations by using empirical evidence.
106	(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 	TX2_USSXP160101	Plants' Needs for Photosynthesis (TX2_USSXP160101)	In Part 2 of the Activity Object, students analyze scientific explanations by using empirical evidence.	In the Investigation Sheet, students are asked to analyze scientific explanations by using empirical evidence.
107	(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 	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)		Q1 of the Investigation Sheet asks students to analyze scientific explanations by using empirical evidence.
108	(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	 (ii) in all fields of science, analyze scientific explanations by using logical reasoning 	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Activity Object, students analyze scientific explanations by using logical reasoning.	In the Investigation Sheet, students are asked to analyze scientific explanations by using logical reasoning.
109	(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		TX2_USSXP180101	Life from Nonliving Things: Redi's Experiment (TX2_USSXP180101)	In the Activity Object, students analyze scientific explanations by using experimental testing.	In the Investigation Sheet, students are asked to analyze scientific explanations by using experimental testing.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
110	(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		Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, students analyze scientific explanations by using experimental testing.	Q1-Q2-Q3-Q4 of the "Learner Journal" section of the Activity Sheet ask students to analyze and evaluate scientific explanations by using experimental testing.
111	(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	TX2_USSSM150207	Star Types: In Search of Habitability (TX2_USSSM150207)	In the Activity Object, students analyze scientific explanations by using observational testing.	In the Investigation Sheet, students are asked to analyze scientific explanations by using observational testing.
112	(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	TX2_USSSM160210	Life Cycle of Animals (TX2_USSSM160210)	In the Activity Object, students analyze scientific explanations by using observational testing.	Q1-Q2-Q3-Q4-Q5-Q6 of the "Learner Journal" section of the Activity Sheet ask students to analyze and evaluate scientific explanations by using observational testing.
113	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	The Activity Object explains the historical development of atomic models from Rutherford to Bohr. Students analyze scientific explanations for the different models, including examining all sides of scientific evidence of those scientific explanations.	In the Investigation Sheet, students are asked to analyze scientific explanations regarding the different atomic models, including examining all sides of scientific evidence of those scientific explanations.
114	(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	TX2_USSAN200113	Applying and Communicating Scientific Information (TX2_USSAN200113)	The Animation shows students how to analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations.	The Question-Answer Sheet asks students questions that assess their ability to analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations.
115	(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	TX2_USSSM180103	Analysis of Fossil Evidence (TX2_USSSM180103)	The Activity Object presents data about fossils found in a certain area and examines all sides of this data to analyze scientific explanations about the animals who lived in the area.	Q2 and Q3 of the "Doing the Activity Object" section of the Activity Sheet, as well as Q1 and Q2 of the "Thinking About the Activity Object" section of the Activity Sheet, ask students to analyze and evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
116	(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	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students evaluate scientific explanations by using empirical evidence.	In the Investigation Sheet, students are asked to evaluate scientific explanations by using empirical evidence.
117	(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	TX2_USSXP160101	Plants' Needs for Photosynthesis (TX2_USSXP160101)	In Part 2 of the Activity Object, students evaluate scientific explanations by using empirical evidence.	In the Investigation Sheet, students are asked to evaluate scientific explanations by using empirical evidence.
118	(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	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Investigation Sheet, students learn about how to use empirical evidence to evaluate scientific explanations.	Q2 of the Investigation Sheet asks students to evaluate scientific explanations by using empirical evidence.
119	(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	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Activity Object, students evaluate scientific explanations by using logical reasoning.	In the Investigation Sheet, students are asked to evaluate scientific explanations by using logical reasoning.
120	(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	TX2_USSXP180101	Life from Nonliving Things: Redi's Experiment (TX2_USSXP180101)	In the Activity Object, students evaluate scientific explanations by using experimental testing.	In the Investigation Sheet, students are asked to evaluate scientific explanations by using experimental testing.
121	(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	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, students evaluate scientific explanations by using experimental testing.	Q1-Q2-Q3-Q4 of the "Learner Journal" section in the Activity Sheet ask students to analyze and evaluate scientific explanations by using experimental testing.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
122	(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	TX2_USSSM150207	Star Types: In Search of Habitability (TX2_USSSM150207)	In the Activity Object, students evaluate scientific explanations by using observational testing.	In the Investigation Sheet, students are asked to evaluate scientific explanations by using observational testing.
123	(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	TX2_USSSM160210	Life Cycle of Animals (TX2_USSSM160210)	In the Activity Object, students evaluate scientific explanations by using observational testing.	Q1-Q2-Q3-Q4-Q5-Q6 of the "Learner Journal" section in the Activity Sheet ask students to analyze and evaluate scientific explanations by using observational testing.
124	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	The Activity Object explains the historical development of atomic models from Rutherford to Bohr. Students evaluate the scientific explanations of these different models, including examining all sides of scientific evidence of those scientific explanations.	In the Investigation Sheet, students are asked to evaluate the scientific explanations for various historical models of the atom, including examining all sides of scientific evidence of those scientific explanations.
125	(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	TX2_USSAN200113	Applying and Communicating Scientific Information (TX2_USSAN200113)	In the Animation, students learn about evaluating scientific explanations, including examining all sides of scientific evidence of those scientific explanations.	
120	(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	TX2_USSSM180103	Analysis of Fossil Evidence (TX2_USSSM180103)	The Activity Object presents data about fossils found in a certain area and examines all sides of this data to evaluate scientific explanations about the animals who lived in the area.	Q2 and Q3 of the "Doing the Activity Object" section of the Activity Sheet, as well as Q1 and Q2 of the "Thinking About the Activity Object" section of the Activity Sheet, ask students to analyze and evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations.
127	(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	(xi) in all fields of science, critique scientific explanations by using empirical evidence	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students critique scientific explanations by using empirical evidence.	In the Investigation Sheet, students are asked to critique scientific explanations by using empirical evidence.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
128	(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	(xi) in all fields of science, critique scientific explanations by using empirical evidence	TX2_USSXP160101	Plants' Needs for Photosynthesis (TX2_USSXP160101)	In Part 2 of the Activity Object, students critique scientific explanations by using empirical evidence.	In the Investigation Sheet, students are asked to critique scientific explanations by using empirical evidence.
129	(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	TX2_USSXP080101	Newton's Second Law of Motion (TX2_USSXP080101)	In the Activity Object, students critique scientific explanations by using logical reasoning.	In the Investigation Sheet, students are asked to evaluate scientific explanations by using logical reasoning.
130	(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	TX2_USSXP180101	Life from Nonliving Things: Redi's Experiment (TX2_USSXP180101)	In the Activity Object, students critique scientific explanations by using experimental testing.	In the Investigation Sheet, students are asked to critique scientific explanations by using experimental testing.
131	(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	TX2_USSXP080102	Balanced and Unbalanced Forces (TX2_USSXP080102)	In the Activity Object, students evaluate scientific explanations by using experimental testing.	In the "Reflections" section of the Activity Sheet, students are asked to critique scientific explanations by using experimental testing.
132	(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	(xiv) in all fields of science, critique scientific explanations by using observational testing	TX2_USSSM150207	Star Types: In Search of Habitability (TX2_USSSM150207)	In the Activity Object, students critique scientific explanations by using observational testing.	In the Investigation Sheet, students are asked to critique scientific explanations by using observational testing.
133	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	The Activity Object explains the historical development of atomic models from Rutherford to Bohr. Students critique scientific explanations of the various models, including examining all sides of scientific evidence of those scientific explanations.	In the Investigation Sheet, students are asked to critique scientific explanations of various atomic models, including examining all sides of scientific evidence of those scientific explanations.

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# 134	TEKS (Knowledge and Skills) (3) Scientific investigation and reasoning.	Student Expectation (A) in all fields of science, analyze,	(xv) in all fields of	Item Number	Component	Learning Component Description	Assessment Component Description
134	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) If an inerce of science, and argue, 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	science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_USSAN200113	Applying and Communicating Scientific Information (TX2_USSAN200113)	In the Animation, students learn about critiquing scientific explanations, including examining all sides of scientific evidence of those scientific explanations.	In the Question-Answer Sheet, students are asked to critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations.
135	(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	TX2_USSSM180103	Analysis of Fossil Evidence (TX2_USSSM180103)	The Activity Object presents data about fossils found in a certain area and critiques all sides of the scientific explanations for this data in order to determine which types of animals lived in the area.	In the Activity Sheet, students are asked to critique the scientific explanations for which animals lived in a certain area, based on fossil evidence, including examining all sides of scientific evidence of those scientific explanations
136	(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	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	In the Activity Object, students use cell models to represent aspects of the natural world.	
137	(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	TX2_USSSM160301	Muscles and Pinocchio's Arm (TX2_USSSM160301)	In the Activity Object, students use human models to represent aspects of the natural world.	
138	(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	TX2_USSSM010501	Atomic Model History: From Ancient Greece to Thomson (TX2_USSSM010501)	In the Activity Object, students use models to represent atomic structure.	
139	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	In the Activity Object, students use models to represent atomic structure.	
140	(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	TX2_USSSM130112	The Structural Layers of Earth (TX2_USSSM130112)	In Part 2 of the Activity Object, students create a virtual model of the layers of the Earth.	During the Activity Object, students provide responses while creating a virtual model of the layers of the Earth. These student responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
141	(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 	TX2_USSSM150101	Formation of Seasons (TX2_USSSM150101)	In the Investigation Sheet, students create a model by using foam spheres to demonstrate both the Earth's rotation, and its revolution around the sun.	In the Investigation Sheet, students must use their model, which depicts the Earth's rotation, and its revolution around the sun, to answer various questions.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
142	(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	TX2_USSSM150101	Formation of Seasons (TX2_USSSM150101)	In Part 3 of the Activity Object, students model the heating of the Earth with a lamp, a thermometer, and a screen.	
143	(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	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The Interactive model represents human body systems.	
144	(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	TX2_USSUN160501	The Respiratory System (TX2_USSUN160501)	The Interactive model represents a human body system.	
145	(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	TX2_USSUN160701	The Urinary System (TX2_USSUN160701)	The Interactive model represents a human body system.	
146	(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	TX2_USSUN170101	The Structure of DNA (TX2_USSUN170101)	The Interactive model represents a DNA molecule, an aspect of the natural world.	
147	(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:	(C) identify advantages and limitations of models such as size, scale, properties, and materials	(i) identify advantages of models	TX2_USSAN200118	Modeling and Mathematics in Physics (TX2_USSAN200118)	The Animation identifies the advantages of models.	Q3 of the Enrichment Sheet, asks students to list some advantages of models.
148	(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:	(C) identify advantages and limitations of models such as size, scale, properties, and materials	(i) identify advantages of models	TX2_USSAN200107	Life Science Models (TX2_USSAN200107)	The Animation identifies the advantages of models.	
149	(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:	(C) identify advantages and limitations of models such as size, scale, properties, and materials	(ii) identify limitations of models	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	certain models of the atom have limits,	In the Investigation Sheet, students analyze various atomic models and fill out a chart with evidence that supports or refutes the models.
150	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	 (i) relate the impact of research on scientific thought, including the history of science 	TX2_USSAN200116	History of Biology (TX2_USSAN200116)	The Animation relates the impact of research on the history of biology, including advances in biology.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
151	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	 (i) relate the impact of research on scientific thought, including the history of science 	TX2_USSAN180207	History of Taxonomy (TX2_USSAN180207)	The Animation relates the impact of research on the history of taxonomy, including advances in taxonomy.	
152	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	 (i) relate the impact of research on scientific thought, including the history of science 	TX2_USSSM010501	Atomic Model History: From Ancient Greece to Thomson (TX2_USSSM010501)	The Activity Object teaches students the impact of research on scientific thought by sharing the historical experiments and ideas surrounding the evolution of the atomic model. The Activity Object includes models from ancient Greece to Thomson, and outlines the contributions of various scientists.	In the Activity Sheet, students are asked to answer questions for which they must describe how individual scientists contributed to a change in scientific thought regarding the structure of atoms, thus relating the impact of research on scientific thought, including the history of science.
153	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	 (i) relate the impact of research on scientific thought, including the history of science 	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	The Activity Object teaches how the historical experiments from Rutherford to Bohr contributed to the evolution of the modern model of the atom, thus relating the impact of research on scientific thought, including the history of science	In the Activity Sheet, students answer a question in which they must describe how the research of individual scientists contributed to a change in scientific thought regarding the structure of atoms.
154	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	 (ii) relate the impact of research on society, including the history of science 	TX2_USSAN200112	The Impact of Scientific Advances on Science and Society (TX2_USSAN200112)	The Animation relates the impacts of research on society, including the history of science.	In the Question-Answer Sheet, students describe how scientific advances have changed the lives of ordinary people, as well as the history of science.
155	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(ii) relate the impact of research on society, including the history of science	TX2_USSAN200116	History of Biology (TX2_USSAN200116)	The Animation identifies the impacts of research on society, as well as its effects on the history of biology.	In the Question-Answer Sheet, students describe the purpose of the human genome project: to improve medical knowledge and develop cures for disease. This relates the impacts of research on society, as well as the history of science.
156	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(ii) relate the impact of research on society, including the history of science	TX2_USSAN180207	History of Taxonomy (TX2_USSAN180207)	The Animation uses the example of taxonomy to relate the impacts of research on the history of science, as well as society.	
157	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(iii) relate the impact of research on scientific thought, including the contributions of scientists as related to the content	TX2_USSAN200112	The Impact of Scientific Advances on Science and Society (TX2_USSAN200112)	The Animation relates the impacts of research on scientific thought, and includes the contributions of scientists.	
158	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(iii) relate the impact of research on scientific thought, including the contributions of scientists as related to the content	TX2_USSAN200116	History of Biology (TX2_USSAN200116)	The Animation identifies the contributions of numerous scientists, and shows how their research influenced scientific thought.	In the Question-Answer Sheet, students identify the contributions of numerous biologists, and describe the effects that their research had on scientific thought.
159	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(iii) relate the impact of research on scientific thought, including the contributions of scientists as related to the content	TX2_USSAN180207	History of Taxonomy (TX2_USSAN180207)	The Animation follows the development of taxonomy from Aristotle to Linnaeus and describes how historical research has impacted scientific thought.	In the Question-Answer Sheet, students identify the contributions of Aristotle and Linnaeus, and explain how the research of various scientists has impacted the history of taxonomy.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
160	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(iv) relate the impact of research on society, including the contributions of scientists as related to the content	TX2_USSAN200112	The Impact of Scientific Advances on Science and Society (TX2_USSAN200112)	The Animation explains the impacts of scientific research on society.	
161	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(iv) relate the impact of research on society, including the contributions of scientists as related to the content	TX2_USSSM080104	Newton's Third Law of Motion: The Physics of Rockets (TX2_USSSM080104)	In Part 1 of the Activity Object, students are shown how the understanding of the principles of Newton's third law has enabled the development of modern space technology.	In the Activity Sheet, students describe how the understanding of the principles of Newton's third law allows rockets to contribute to space exploration.
162	(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:	(D) relate the impact of research on scientific thought and society, including the history of science and contributions of scientists as related to the content	(iv) relate the impact of research on society, including the contributions of scientists as related to the content	TX2_USSAN200116	History of Biology (TX2_USSAN200116)	The Animation explains how the human genome project can help scientists prevent or cure diseases now and in the future. This relates the impact of research on society,	In the Question-Answer Sheet, students identify the purpose of the human genome project, thereby relating the impact of research on society.
163	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSSM160301	Muscles and Pinocchio's Arm (TX2_USSSM160301)		During the Activity Object, students provide responses regarding the use of appropriate tools to collect information, including a life science model. Student responses regarding the correct use of the model are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
164	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSSM160301	Muscles and Pinocchio's Arm (TX2_USSSM160301)		In the Activity Sheet, students must use their experiences with the interactive model to answer questions about the arm and muscles.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
165	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSAN200107	Life Science Models (TX2_USSAN200107)	The Animation demonstrates usage of life science models during investigations in which data is collected.	In the Question-Answer Sheet, students answer questions about the appropriate use of models of the human body to collect information.
166	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The user software features an interactive model of the human body that students use to learn about organs and their functions.	
167	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSUN160501	The Respiratory System (TX2_USSUN160501)	The user software features an interactive model of the human respiratory system that students use to learn about organs and their functions.	
168	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSUN160701	The Urinary System (TX2_USSUN160701)	The user software features an interactive model of the human urinary system that students use to learn about organs and their functions.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
169	(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	(i) use appropriate tools to collect information, including life science models	TX2_USSUN170101	The Structure of DNA (TX2_USSUN170101)	The user software features an interactive model of a DNA molecule that students use to learn about DNA.	
170	(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	(ii) use appropriate tools to collect information, including hand lens	TX2_USSSM130201	The Rock Cycle (TX2_USSSM130201)	In the Activity Object, students collect information using tools, including hand lenses.	In the Activity Object, students analyze rock samples with a hand lens, then record details of their observations in a virtual lab book. Student responses in the lab book are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
171	(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	(ii) use appropriate tools to collect information, including hand lens	TX2_USSAN110101	Lab Equipment: Optics (TX2_USSAN110101)	The Animation shows students how to use appropriate tools to collect information, including hand lenses.	
172	(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	(ii) use appropriate tools to collect information, including hand lens	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the Lab Sheet, students use a hand lens to investigate insects.	Q3 of the Lab Sheet asks students to describe the features of insects, as seen under a hand lens.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
173	(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	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	The Animation shows students how to collect information by using stereoscopes.	
174	(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	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	In the Lab Sheet, students use a stereoscope to collect 3D information.	The Lab Sheet assesses the use of a stereoscope to collect information.
175	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	In the Lab Sheet, students use a spectroscope to collect information.	The Lab Sheet assesses the use of a spectroscope to collect information
176	(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	(iv) use appropriate tools to collect information, including microscopes	TX2_USSSM160101	Exploring Cells with a Microscope (TX2_USSSM160101)	In the Activity Object, students use appropriate tools to collect information, including microscopes.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
177	(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	(iv) use appropriate tools to collect information, including microscopes	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students use appropriate tools to collect information, including microscopes.	
178	(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	(iv) use appropriate tools to collect information, including microscopes	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the Lab Sheet, students observe features of insects with a microscope.	Q4 of the Lab Sheet asks students to record the observations they made with the microscope.
179	(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	(iv) use appropriate tools to collect information, including microscopes	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	In the Lab Sheet, students observe features of onion cells with a microscope.	In the Lab Sheet, students diagram the observations they made with the microscope.
180	(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	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to collect information, including beakers.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
181	(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	TX2_USSSM050101	Separation of Mixtures (TX2_USSSM050101)	In the Activity Object, students use appropriate tools to collect information, including beakers.	
182	(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	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students must use a beaker during an investigation in which they measure the pH of water samples.	Q4 of the Lab Sheet assesses the use of the beaker to collect information.
183	(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	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	In the Lab Sheet, students use beakers during an investigation.	The Lab Sheet assesses the use of the beaker to collect information.
184	(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	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Lab Sheet, students must use beakers during an investigation.	The Lab Sheet assesses the use of the beaker to collect information.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
185	(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	(vi) use appropriate tools to collect information, including Petri dishes	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students use appropriate tools to collect information, including Petri dishes.	
186	(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	(vi) use appropriate tools to collect information, Petri dishes	TX2_USSXP190101	Environmental Factors That Affect the Gro	In the Lab sheet students use Petri dishes to collect information on seed germination under different light conditions.	In the lab sheet students record data on seed germination from seeds grown in Petri dishes.
187	(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	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to collect information, including graduated cylinders.	
188	(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	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	In the lab sheet students used graduated cylinders as part of an investigation to collect information.	Question 12 of the lab sheet assesses the use of a graduated cylinder in the investigations.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
189	(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	(viii) use appropriate tools to collect information, including test tubes	TX2_USSSM160110	The Effect of Temperature on Enzyme Activity (TX2_USSSM160110)	In the Activity Object, students use appropriate tools to collect information, including test tubes.	
190	(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	(viii) use appropriate tools to collect information, test tubes	TX2_USSAN040104	How Liquid Thermometers Measure Temperature (TX2_USSAN040104)	In the Lab sheet, students carry out two investigations in which they collect information by using test tubes.	In the Lab sheet, data collected with the use of test tubes is analyzed.
191	(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	TX2_USSAN080102	Lab Equipment: Mechanics (TX2_USSAN080102)	The Animation shows students how to use appropriate tools to collect information, including meter sticks.	Q11 of the Enrichment Sheet assesses the use of a meter stick in the investigation.
192	(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	(x) use appropriate tools to collect information, including metric rulers	TX2_USSAN080102	Lab Equipment: Mechanics (TX2_USSAN080102)	The Animation shows students how to use appropriate tools to collect information, including metric rulers.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
193	(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	(x) use appropriate tools to collect information, including metric rulers	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the Lab Sheet, there is an investigation in which students use a metric ruler to collect information.	Q1 of the Lab Sheet asks students to record their observations of the size of insects, which are taken with a metric ruler (in mm).
194	(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	(xi) use appropriate tools to collect information, including metric tape measures	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	The Animation shows students how to use appropriate tools to collect information, including metric tape measures.	
195	(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	(xi) use appropriate tools to collect information, including metric tape measures	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Lab Sheet, there is an investigation in which students use a metric tape measure to collect information.	The Lab Sheet contains a question that assess the use of the metric tape measure to collect information.
196	(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	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Lab Sheet, students use a stop watch during an investigation to collect information.	Q6 of the Lab Sheet asks students to provide the time measurements they made with the stopwatch.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
197	(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	TX2_USSXP020201	Melting and Boiling Points: Different Materials, Different Amounts (TX2_USSXP020201)	In the Activity Object, students use appropriate tools to collect information, including hot plates.	In the Activity sheet students record data on melting and boiling points that was collected during the interaction with the aid of a hotplate.
198	(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	TX2_USSAN040104	How Liquid Thermometers Measure Temperature (TX2_USSAN040104)	In the Lab sheet, students carry out an investigations in which data is gathered with the aid of a hot plate.	In the Lab sheet, data is collected with the use of a hot plate.
199	(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, therimometers, 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	(xiv) use appropriate tools to collect information, including balances	TX2_USSXP010404	Conservation of Mass in Chemical Reactions (TX2_USSXP010404)	In the Activity Object, students use appropriate tools to collect information, including balances.	
200	(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	(xiv) use appropriate tools to collect information, including balances	TX2_USSSM200103	Measuring Mass and Weight (TX2_USSSM200103)	In the Activity Object, students use appropriate tools to collect information, including balances.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
201	(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	(xiv) use appropriate tools to collect information, including balances	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	In the Lab Sheet, students use a balance to make measurements during an investigation.	The Lab Sheet asks students to record, in a table, the measurements they made with the lab balance.
202	(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	TX2_USSXP040201	Heat Conduction (TX2_USSXP040201)	In the Activity Object, students use appropriate tools to collect information, including thermometers.	
203	(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	TX2_USSXP020202	Melting and Boiling Points: Heating Curves (TX2_USSXP020202)	In the Activity Object, students use appropriate tools to collect information, including thermometers.	During the Interaction, the use of the thermometer is assessed by the software, and appropriate feedbacks are given.
204	(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	TX2_USSSM150101	Formation of Seasons (TX2_USSSM150101)	In Part 3 of the Activity Object, students model the heating of the Earth and collect information with a lamp, a thermometer, and a screen.	In the Activity Sheet, students record the temperature measurements they made with the thermometer.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
205	(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	(xvi) use appropriate tools to collect information, including calculators	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to collect information, including calculators.	
206	(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	(xvi) use appropriate tools to collect information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	The Animation teaches students how to collect information with calculators.	The Question-Answer Sheet asks a question about the function of calculators in scientific experiments.
207	(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	(xvi) use appropriate tools to collect information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 1 includes an investigation in which students collect information with a calculator.	Investigation Sheet 1 assesses the use of the calculator in the scientific experiments.
208	(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	(xvi) use appropriate tools to collect information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 2 includes an investigation in which students collect information with a calculator.	Investigation Sheet 2 assesses the use of the calculator in the scientific experiments.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
209	(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	(xvii) use appropriate tools to collect information, including water test kits	TX2_USSXP060103	Identifying pH of Substances (TX2_USSXP060103)	In the Activity Object, students use appropriate tools to collect information, including water test kits.	
210	(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	(xvii) use appropriate tools to collect information, including water test kits	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	The Animation shows students how to collect information using appropriate tools, including water test kits.	
211	(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	(xvii) use appropriate tools to collect information, including water test kits	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students use pH strips from a water test kit to test different samples and collect information.	In the Lab Sheet, students record the data that they collected when using the pH strips from the water test kit.
212	(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	(xviii) use appropriate tools to collect information, including computers	TX2_USSSM010202	Calculating Atomic Mass (TX2_USSSM010202)	In the Activity Object, students use appropriate tools to collect information, including computers.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
213	(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	(xviii) use appropriate tools to collect information, including computers	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	The Animation teaches students how to collect information with computers.	The Question-Answer Sheet asks a question about the function of computers in scientific investigations.
214	(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	(xviii) use appropriate tools to collect information, including computers	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 1 includes an investigation in which students collect information with a computer.	Investigation Sheet 1 assesses the use of the computer during the investigation.
215	(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	(xviii) use appropriate tools to collect information, including computers	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 2 includes an investigation in which students collect information with a computer.	Investigation Sheet 2 assesses the use of the computer during the investigation.
216	(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	TX2_USSXP040201	Heat Conduction (TX2_USSXP040201)	In the Activity Object, students use appropriate tools to collect information, including temperature probes.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
217	(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	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation sheet 2 includes an activity involving the collection of data with temperature probes.	Investigation sheet 2 Q4 students must record the temperatures collected with temperature probes.
218	(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	(xx) use appropriate tools to collect information, including pH probes	TX2_USSAN060101	Acid-Base Indicators (TX2_USSAN060101)	The Animation teaches students how to collect information by using pH probes.	The Question-Answer Sheet assesses the use of pH probes to collect information
219	(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	(xx) use appropriate tools to collect information, including pH probes	TX2_USSAN060101	Acid-Base Indicators (TX2_USSAN060101)	The Lab Sheet includes an investigation that requires the use of a pH probe. Data gathered by the probe is analyzed.	Q1 of the Lab Sheet asks students to analyze data gathered by the pH probe.
220	(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	(xxi) use appropriate tools to collect information, including collecting nets	TX2_USSAN200103	Collecting Nets (TX2_USSAN200103)	The Animation shows students how to use appropriate tools to collect information, including collecting nets.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
221	(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	(xxi) use appropriate tools to collect information, including collecting nets	TX2_USSAN200103	Collecting Nets (TX2_USSAN200103)	The Lab Sheet contains an investigation in which students collect information by using collecting nets.	The Lab Sheet assesses the use of collecting nets to collect information.
222	(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	(xxii) use appropriate tools to collect information, including insect traps	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	The Animation shows students how to use appropriate tools to collect information, including insect traps.	
223	(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	(xxii) use appropriate tools to collect information, including insect traps	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	The Lab Sheet contains an investigation in which students collect information by using insect traps.	The Lab Sheet assesses the use of insect traps to collect information.
224	(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	(xxiii) use appropriate tools to collect information, including globes	TX2_USSAN200104	Globes (TX2_USSAN200104)	The Animation shows students how to use appropriate tools to collect information, including globes.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
225	(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	(xxiii) use appropriate tools to collect information, including globes	TX2_USSAN200104	Globes (TX2_USSAN200104)	The Lab Sheet contains an exercise in which students use a globe to collect information.	The Lab Sheet assesses the use of globes to collect information.
226	(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	(xxiv) use appropriate tools to collect information, including digital cameras	TX2_USSAN200117	Digital Cameras (TX2_USSAN200117)	The Animation shows students how to use appropriate tools to collect information, including digital cameras.	
227	(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	(xxiv) use appropriate tools to collect information, including digital cameras	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	The Lab Sheet contains an activity in which students use a digital camera to collect information.	The Lab Sheet assesses the use of the digital camera to collect information.
228	(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	(xxiv) use appropriate tools to collect information, including digital cameras	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	The Lab Sheet contains an investigation in which students use a digital camera to collect information.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
229	(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	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to collect information, including a scale to measure mass, and a beaker to measure volume. Students also use a bulb, a voltage source, and wires, to measure electrical conductivity.	In the Activity Object, students must submit responses with regard to the set-up and use of equipment to collect information. Student responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
230	(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	TX2_USSXP110302	Color Absorption and Reflection: Light into Heat Energy (TX2_USSXP110302)	In the Activity Object, students use appropriate tools to collect information, including equipment such as light bulbs and a thermometer.	In the Activity Object, students must submit responses with regard to the set-up and use of equipment to collect information. Student responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
231	(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	TX2_USSXP040202	Light Intensity and Distance from the Source (TX2_USSXP040202)	In the Activity Object, students use appropriate tools to collect information, including equipment such as a light source and photovoltaic battery.	In the Activity Object, students must submit responses with regard to the set-up and use of equipment to collect information. Student responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
232	(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	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	In the Lab Sheet, students use shoe boxes to collect investigative information about the effects that abiotic factors have on plant growth.	The Lab Sheet assesses the use of the shoeboxes to collect information.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
233	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	In the Lab Sheet, students collect information by conducting an investigation using a spectroscope, gas-filled spectrum tubes, metal loops, an alcohol burner, light bulbs, and salt.	The Lab Sheet assesses the appropriate use of the equipment to collect information.
234	(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	(xxvi) use appropriate tools to record information, including calculators	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to record information, including calculators.	
235	(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	(xxvi) use appropriate tools to record information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	The Animation teaches students how to record information with calculators.	The Question-Answer Sheet asks a question about the function of calculators in scientific experiments.
236	(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	(xxvi) use appropriate tools to record information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 1 includes an investigation in which students record information with a calculator.	Investigation Sheet 1 assesses the use of a calculator to record information in scientific experiments.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
237	(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	(xxvi) use appropriate tools to record information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 2 includes an investigation in which students record information with a calculator.	Investigation Sheet 2 assesses the use of a calculator to record information in scientific experiments.
238	(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	(xxvii) use appropriate tools to record information, including computers	TX2_USSSM010202	Calculating Atomic Mass (TX2_USSSM010202)	In the Activity Object, students use appropriate tools to record information, including computers.	
239	(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	(xxvii) use appropriate tools to record information, including computers	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	The Animation teaches students how to record scientific information with computers.	The Question-Answer Sheet asks a question about the function of computers in scientific investigations.
240	(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	(xxvii) use appropriate tools to record information, including computers	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 1 includes an investigation in which students record information with a computer.	Investigation Sheet 1 assesses the use of computers to record information in scientific investigations.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
241	(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	(xxvii) use appropriate tools to record information, including computers	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 2 includes an investigation in which students record information with a computer.	Investigation Sheet 2 assesses the use of computers to record information in scientific investigations.
242	(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	(xxviii) use appropriate tools to record information, including digital cameras	TX2_USSAN200117	Digital Cameras (TX2_USSAN200117)	The Animation teaches students how to record information using appropriate tools, including digital cameras.	
243	(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	(xxviii) use appropriate tools to record information, including digital cameras	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	The Lab Sheet contains an activity in which students use a digital camera to record 3D information.	The Lab Sheet assesses the use of the digital camera to record information.
244	(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	TX2_USSSM130201	The Rock Cycle (TX2_USSSM130201)	In the Activity Object, students use appropriate tools to record information, including notebooks.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
245	(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	TX2_USSSM130201	The Rock Cycle (TX2_USSSM130201)	In the Investigation Sheet, students use appropriate tools to record information, including notebooks.	The Investigation Sheet assesses the use of notebooks to record information.
246	(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, 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	TX2_USSXP160108	Diffusion (TX2_USSXP160108)	In the Activity Object, students use appropriate tools to record information, including lab journals.	
247	(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, therimometers, 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	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	In the Lab Sheet, students must use a lab notebook during an investigation.	The Lab Sheet assesses the use of lab notebooks to record information.
248	(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, therimometers, 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	(xxx) use appropriate tools to record information including other equipment as needed	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	In the Lab Sheet, students conduct an investigation in which they must use markers and tape to record the identity of experimental treatments in beakers.	The Lab Sheet assesses the use of markers and tape to record the contents of beakers.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
249	(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	TX2_USSSM160301	Muscles and Pinocchio's Arm (TX2_USSSM160301)	The Activity Object uses appropriate tools to analyze information, including life science models.	In the Activity Sheet, students use their analysis of the interactive model to answer questions about the arm and muscles.
250	(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	TX2_USSAN200107	Life Science Models (TX2_USSAN200107)	The Animation demonstrates usage of life science models to analyze information during investigations.	
251	(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	TX2_USSUN160701	The Urinary System (TX2_USSUN160701)	Students use an interactive 3D model to analyze how the urinary system functions.	In the activity object, students analyze the 3-D model and answer questions in the built in quiz, about the function of parts. Responses are assessed by the software and appropriate feedbacks are given.
252	(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	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	Students use an interactive 3D model to analyze how the human body functions.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
253	(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	TX2_USSUN160501	The Respiratory System (TX2_USSUN160501)	Students use an interactive 3D model to analyze how the respiratory system functions.	
254	(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	TX2_USSUN170101	The Structure of DNA (TX2_USSUN170101)	Students use an interactive 3D model to analyze how DNA is structured.	
255	(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	TX2_USSSM170103	DNA Structure (TX2_USSSM170103)	In part 2 of the Activity object students use a model of a DNA molecule to analyze how the bases pair.	In part 2 of the Activity object students insert bases tnto a DNA strand to analyze how it is constructed. Correct insertion of bases is monitored by the system and appropriate feedbacks are given.
256	(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	(xxxii) use appropriate tools to analyze information, including hand lens	TX2_USSSM130201	The Rock Cycle (TX2_USSSM130201)	In the Activity Object, students analyze information using tools, including hand lenses.	In the Activity Object, students analyze rock samples with a hand lens. Students enter data from their analyses into a virtual lab notebook. These data entries are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
257	(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	(xxxii) use appropriate tools to analyze information, including hand lens	TX2_USSAN110101	Lab Equipment: Optics (TX2_USSAN110101)	The Animation shows students how to use appropriate tools to analyze information, including hand lenses.	
258	(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	(xxxii) use appropriate tools to analyze information, including hand lens	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the Lab Sheet, students use a hand lens to analyze insects.	Q3 of the Lab Sheet asks students to analyze insects and describe the features of insects as seen under a hand lens.
259	(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	(xxxiii) use appropriate tools to analyze information, including stereoscopes	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	The Animation shows students how to use appropriate tools to analyze information, including stereoscopes.	In the Question-Answer Sheet, students are asked to analyze information by using stereoscopes.
260	(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, 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	(xxxiii) use appropriate tools to analyze information, including stereoscopes	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	The Lab Sheet contains an activity in which a stereoscope is used to analyze information.	The Lab Sheet assesses the use of a stereoscope to analyze information.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
261	(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	(xxxiii) use appropriate tools to analyze information, including stereoscopes	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	In the Lab Sheet, students use a spectroscope to analyze spectral lines.	The Lab Sheet assesses the use of a spectroscope to analyze information.
262	(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, therimometers, 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	(xxxiv) use appropriate tools to analyze information, including microscopes	TX2_USSSM160101	Exploring Cells with a Microscope (TX2_USSSM160101)	In the Activity Object, students use appropriate tools to analyze information, including microscopes.	During the interaction, the use of the microscope is assessed by the software, and appropriate feedbacks are given.
263	(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	(xxxiv) use appropriate tools to analyze information, including microscopes	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students use appropriate tools to analyze information, including microscopes.	
264	(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, therimometers, 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	(xxxiv) use appropriate tools to analyze information, including microscopes	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the lab sheet students use a microscope to examine structures of insects.	Question 4 of the lab sheet asks students to describe structures that are visible under a microscope.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
265	(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	(xxxiv) use appropriate tools to analyze information, including microscopes	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	In the lab sheet students use a microscope to examine plant cells.	In the lab sheet students must diagram parts of plant cells seen using a microscope.
266	(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	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to analyze information, including beakers	
267	(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	TX2_USSSM050101	Separation of Mixtures (TX2_USSSM050101)	In the Activity Object, students use appropriate tools to analyze information, including beakers	
268	(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	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students must use clean glass beakers while measuring and analyzing the pH of water samples.	Q4 of the Lab Sheet assesses the use of a clean glass beaker. Data obtained from the measurements is analyzed by the students in the Lab Sheet.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
269	(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	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	In the Lab Sheet, students use glass beakers to grow plant samples.	The Lab Sheet includes questions that require the analysis of data that was collected with the aid of beakers.
270	(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	(xxxvi) use appropriate tools to analyze information, including Petri dishes	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students use appropriate tools to analyze information, including Petri dishes.	
271	(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	(xxxvi) use appropriate tools to analyze information, including Petri dishes	TX2_USSXP190101	Environmental Factors That Affect the Growth of Molds (TX2_USSXP190101)	In the Lab sheet students use Petri dishes to collect information on seed germination under different light conditions. Data is recorded in a table and then analyzed.	In the lab sheet students analyze data gathered on seed germination from seeds grown in Petri dishes. Students answer questions about the effect of light on germination.
272	(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	(xxxvii) use appropriate tools to analyze information, including microscope slides	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students use appropriate tools to analyze information, including microscope slides.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
273	(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	(xxxvii) use appropriate tools to analyze information, including microscope slides	TX2_USSXP160109	Osmosis (TX2_USSXP160109)	In Section 2 of the Activity Object, students use appropriate tools to analyze information, including microscope slides.	In the Activity Object, students must provide responses to show the correct use of microscope slides. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
274	(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	(xxxvii) use appropriate tools to analyze information, including microscope slides	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	The Lab Sheet includes an investigation that requires students to use microscope slides.	Q4 of the Lab Sheet assesses the use of the microscope slides. Information obtained through the use of the slides is also analyzed by the student in the Lab Sheet.
275	(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	(xxxviii) use appropriate tools to analyze information, including graduated cylinders	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to analyze information, including graduated cylinders.	In Section 1 of the Activity Object, students measure the volume of unknown substances with a cylinder and record the data in a data table. This and other data entered in the table is then analyzed, and the identities of the unknown substances are determined. Correct analysis is monitored by the software, and appropriate feedbacks are given.
276	(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	(xxxix) use appropriate tools to analyze information, including test tubes	TX2_USSSM160110	The Effect of Temperature on Enzyme Activity (TX2_USSSM160110)	In the Activity Object, students use appropriate tools to analyze information, including test tubes.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
277	(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	(xxxix) use appropriate tools to analyze information, including test tubes	TX2_USSAN020201	Boiling, Condensation, Freezing, and Melting Points (TX2_USSAN020201)	In the Animation, students use appropriate tools to analyze information, including test tubes.	
278	(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	(xxxix) use appropriate tools to analyze information, including test tubes	TX2_USSAN040104	How Liquid Thermometers Measure Temperature (TX2_USSAN040104)	In the Lab sheet, students carry out two investigations in which they analyze information gathered by using test tubes.	In the Lab sheet, data collected with the use of a test tubes is analyzed.
279	(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	(xl) use appropriate tools to analyze information, including meter sticks	TX2_USSAN080102	Lab Equipment: Mechanics (TX2_USSAN080102)	The Animation shows students how to use appropriate tools to analyze information, including meter sticks.	
280	(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	(xl) use appropriate tools to analyze information, including meter sticks	TX2_USSSM080101	The Concept of Inertia (TX2_USSSM080101)	The Investigation sheet involves an investigation in which a meter stick is used to analyze information.	In the Investigation sheet, students use a meter stick to collect information, and then analyze the data that they have collected. Q2 involves analysis of the data.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
281	(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	TX2_USSAN080102	Lab Equipment: Mechanics (TX2_USSAN080102)	In the Animation, students use appropriate tools to analyze information, including metric rulers.	
282	(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	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	The Lab Sheet includes an investigation in which students use a metric ruler.	Q1 of the Lab Sheet asks students to record the size of insects (in mm) with a metric ruler. Students analyze this data to make conclusions.
283	(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	(xlii) use appropriate tools to analyze information, including metric tape measures	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Animation, students use appropriate tools to analyze information, including metric tape measures.	
284	(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	(xlii) use appropriate tools to analyze information, including metric tape measures	TX2_USSAN200108	Tools for Scientific Analysis: Tape Measures (TX2_USSAN200108)	In the Lab Sheet, students use a metric tape measure to measure the distance that food coloring travels up a celery stalk under different conditions. Students then analyze the data to decide if it supports the theory of evapotranspiration.	Q7 In the Lab Sheet requires students to analyze the data collected with the metric tape measure.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
285	(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	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	In the Activity Object, students perform a virtual experiment in which a stopwatch is used to collect and analyze data.	
286	(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	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students must use a digital timer to collect and analyze data during an investigation that involves the measurement of the pH of water samples.	Q6 of the Lab Sheet assesses the use of a digital timer to collect and analyze data.
287	(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	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students perform a virtual experiment in which a timing device is used. Counting the number of vacuole contractions in a measured unit of time allows students to analyze the effects of different solutions on contractions.	In the Activity Object, students perform a virtual experiment in which a timing device is used. Counting the number of vacuole contractions in a measured unit of time allows students to analyze the effects of different solutions on contractions. During this process, students must provide responses in the Activity Object. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
288	(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	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)		In the Activity Sheet, students answer a question about the frequency of vacuole contractions, and this demonstrates the analysis of data as obtained by measurements from the timing device.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
289	(4) Science investigation and reasoning.	(A) use appropriate tools to collect,	(xliv) use appropriate	item Number	Component	Learning Component Description	Assessment Component Description
	The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	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	tools to analyze information, including hot plates	TX2_USSXP020201	Melting and Boiling Points: Different Materials, Different Amounts (TX2_USSXP020201)	In the Activity Object, students use appropriate tools to analyze information, including hot plates.	
290	(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	(xliv) use appropriate tools to analyze information, including hot plates	TX2_USSAN040104	How Liquid Thermometers Measure Temperature (TX2_USSAN040104)	In the Lab sheet, students carry out two investigations in which they analyze information gathered by using a hotplate.	In the Lab sheet, data collected with the use of a hotplate is analyzed.
291	(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	(xlv) use appropriate tools to analyze information, including balances	TX2_USSXP010404	Conservation of Mass in Chemical Reactions (TX2_USSXP010404)	In the Activity Object, students use appropriate tools to analyze information, including balances.	
292	(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	(xlv) use appropriate tools to analyze information, including balances	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to analyze information, including balances.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
293	(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	(xlv) use appropriate tools to analyze information, including balances	TX2_USSSM200103	Measuring Mass and Weight (TX2_USSSM200103)	In the Activity Object, students use appropriate tools to analyze information, including balances.	
294	(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	(xIv) use appropriate tools to analyze information, including balances	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	In the Lab Sheet, students carry out investigations on plant growth. These investigations require students to make measurements with a balance, and then analyze the changes in mass.	In the Lab Sheet, students answer questions that analyze the changes in mass of plants, as measured with a balance.
295	(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	(xlvi) use appropriate tools to analyze information, including thermometers	TX2_USSXP040201	Heat Conduction (TX2_USSXP040201)	In the Activity Object, students use appropriate tools to analyze information, including thermometers.	In the lab sheet students use a celsius thermometer (temperature probe) in an investigation. Data is recorded in a table and then several analysis questions are asked.
296	(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	(xlvi) use appropriate tools to analyze information, including thermometers	TX2_USSXP020202	Melting and Boiling Points: Heating Curves (TX2_USSXP020202)	In the Activity Object, students use appropriate tools to analyze information, including thermometers.	In part 2 of the activity object, students use a digital thermometer to measure the melting and boiling points of substances. The data is used to create a graph, which is analyzed in order to answer questions.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
" 297	(4) Science investigation and reasoning.	(A) use appropriate tools to collect,	(xlvi) use appropriate	item Number	Component	Learning Component Description	Assessment component Description
	The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	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	tools to analyze information, including thermometers	TX2_USSAN040104	How Liquid Thermometers Measure Temperature (TX2_USSAN040104)	In the Animation, students learn how to use appropriate tools to analyze information, including thermometers.	
298	(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	(xlvi) use appropriate tools to analyze information, including thermometers	TX2_USSAN040104	How Liquid Thermometers Measure Temperature (TX2_USSAN040104)	In the Lab sheet, students carry out two investigations in which they analyze information gathered by using a thermometer.	In the Lab sheet, data collected with the use of a thermometer is analyzed.
299	(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	(xlvii) use appropriate tools to analyze information, including calculators	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to analyze information, including calculators.	
300	(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	(xlvii) use appropriate tools to analyze information, including calculators	TX2_USSSM160108	The Surface Area-to-Volume Ratio in Organisms (TX2_USSSM160108)	In the Activity Object, students use appropriate tools to analyze information, including calculators.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
301	(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	(xlvii) use appropriate tools to analyze information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	The Animation teaches students how to use appropriate tools to analyze information, including calculators.	The Question-Answer Sheet asks a question about the function of calculators in analyzing information from scientific experiments.
302	(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	(xlvii) use appropriate tools to analyze information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 1 includes an investigation in which students analyze information with calculators.	Investigation Sheet 1 assesses students on their ability to analyze scientific information obtained with calculators.
303	(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	(xlvii) use appropriate tools to analyze information, including calculators	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 2 includes an investigation in which students analyze information with calculators.	Investigation Sheet 2 assesses students on their ability to analyze scientific information obtained with calculators.
304	(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	(xlviii) use appropriate tools to analyze information, including water test kits	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Animation, students learn how to use appropriate tools to analyze information, including water test kits.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
305	(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	(xlviii) use appropriate tools to analyze information, including water test kits	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students use pH strips from a water test kit to analyze water samples.	In the Lab Sheet, students are asked questions that require them to analyze data from the water samples they tested with pH strips from a water test kit.
306	(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	(xlviii) use appropriate tools to analyze information, including water test kits	TX2_USSXP060103	Identifying pH of Substances (TX2_USSXP060103)	In Part 3 of the Activity Object, students use appropriate tools to analyze information, including water test kits. Students use pH paper from a water test kit to test different solutions. Then students analyze the strips to determine the identity of solutions based on measured pH.	In Part 3 of the Activity Object, students use appropriate tools to analyze information, including water test kits. Students use pH paper from a water test kit to test different solutions. Then students analyze the strips to determine the identity of solutions based on measured pH. While performing these investigations, students must provide responses within the Activity Object. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
307	(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	TX2_USSSM010202	Calculating Atomic Mass (TX2_USSSM010202)	In the Activity Object, students use appropriate tools to analyze information, including computers.	
308	(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	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	In the Animation, students learn how to use appropriate tools to analyze information, including computers.	The Question-Answer Sheet asks a question about the function of computers in analyzing information from scientific investigations.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
309	(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	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 1 includes an investigation in which students analyze scientific information with a computer.	Investigation Sheet 1 assesses students on their ability to analyze scientific information with a computer.
310	(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	TX2_USSAN200120	Computers and Calculators (TX2_USSAN200120)	Investigation Sheet 2 includes an investigation in which students analyze scientific information with a computer.	Investigation Sheet 2 assesses students on their ability to analyze scientific information with a computer.
311	(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	 (I) use appropriate tools to analyze information, including temperature probes 	TX2_USSXP040201	Heat Conduction (TX2_USSXP040201)	In the Activity Object, students analyze information obtained by using temperature probes.	In the Activity Object, students use a temperature probe to measure the change in temperature of frying pans made of different materials. Data is collected in a table, and then students must provide responses to questions that ask them to analyze the data. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
312	(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	(I) use appropriate tools to analyze information, including temperature probes	TX2_USSXP020201	Melting and Boiling Points: Different Materials, Different Amounts (TX2_USSXP020201)	In the Activity Object, students analyze information obtained by using temperature probes.	In the Activity Object, students use a temperature probe to measure the melting and boiling points of different substances. Data is collected in a table, and then students must provide responses to questions that ask them to analyze the data. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
313	(4) Science investigation and reasoning.	(A) use appropriate tools to collect,	(I) use appropriate tools	item Number	Component	Learning Component Description	Assessment Component Description
	The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	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	to analyze information, including temperature probes	TX2_USSXP020201	Melting and Boiling Points: Different Materials, Different Amounts (TX2_USSXP020201)		In the Activity Sheet, students answer a question in which they analyze the information obtained by the temperature probe during their investigation.
314	(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	(ii) use appropriate tools to analyze information, including pH probes	TX2_USSAN060101	Acid-Base Indicators (TX2_USSAN060101)	In the Animation, students learn how to use appropriate tools to analyze information, including pH probes.	In the Question-Answer Sheet, students answer a question that requires them to analyze information obtained by using pH probes.
315	(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	TX2_USSAN060101	Acid-Base Indicators (TX2_USSAN060101)	The Lab Sheet includes an investigation that requires the use of a pH probe. Data gathered by the probe is analyzed.	Q1 of the Lab Sheet asks students to analyze data gathered by the pH probe.
316	(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	(lii) use appropriate tools to analyze information, including collecting nets	TX2_USSAN200103	Collecting Nets (TX2_USSAN200103)	In the Animation, students learn how to use appropriate tools to analyze information, including collecting nets.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
317	(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	(lii) use appropriate tools to analyze information, including collecting nets	TX2_USSAN200103	Collecting Nets (TX2_USSAN200103)	In the Lab Sheet, students use different collecting nets to collect fauna. Students then analyze the results.	The Lab Sheet contains assessment items that require students to analyze the efficacy of different collecting nets, based upon the information they collected during their investigations.
318	(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	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the Animation, students learn how to use appropriate tools to analyze information, including insect traps.	
319	(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	TX2_USSAN200105	Insect Traps (TX2_USSAN200105)	In the Lab Sheet, students use different insect traps to collect insects. Students then analyze the results.	The Lab Sheet contains assessment items that require students to analyze the results obtained with different insect traps.
320	(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	(liv) use appropriate tools to analyze information, including globes	TX2_USSAN200104	Globes (TX2_USSAN200104)	In the Animation, students learn how to use appropriate tools to analyze information, including globes.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
321	(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	(liv) use appropriate tools to analyze information, including globes	TX2_USSAN200104	Globes (TX2_USSAN200104)	The Lab Sheet includes an investigation in which students analyze information obtained by a globe.	The Lab Sheet contains assessment items for which students must use a globe in order to obtain and analyze information.
322	(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	(Iv) use appropriate tools to analyze information, including digital cameras	TX2_USSAN200117	Digital Cameras (TX2_USSAN200117)	In the Animation, students learn how to use appropriate tools to analyze information, including digital cameras.	
323	(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	(Iv) use appropriate tools to analyze information, including digital cameras	TX2_USSAN200119	Stereoscopes (TX2_USSAN200119)	The Lab Sheet contains an activity in which a digital camera is used. Images obtained with the camera are analyzed by the students.	The Lab Sheet contains assessment items related to the analysis of images obtained by the digital camera during the activity.
324	(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	(Ivi) use appropriate tools to analyze information, including journals/notebooks	TX2_USSSM130201	The Rock Cycle (TX2_USSSM130201)	In the Activity Object, students collect and analyze information contained in lab notebooks.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
<u>#</u> 325	 TEKS (Knowledge and Skills) (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: 	Student Expectation (A) use appropriate tools to collect, record, and analyze information, including life science models, hand lens, stereoscopes, microscopes, beakers, Petri dishes, microscopes 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	Breakout (Ivi) use appropriate tools to analyze information, including journals/notebooks	Item Number	Component Diffusion (TX2_USSXP160108)	Learning Component Description In the Activity Object, students collect and analyze information contained in lab journals.	Assessment Component Description
326	(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 	(Ivi) use appropriate tools to analyze information, including journals/notebooks	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	In the Lab Sheet, students must use a lab notebook to record observations, and then analyze the recorded observations to make conclusions.	The Lab Sheet requires data be kept in a lab notebook. The lab sheet includes questions in which this data is analyzed, that can be used for assessment.
327	(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		TX2_USSSM130201	The Rock Cycle (TX2_USSSM130201)	In the Investigation Sheet, students use appropriate tools to analyze information, including notebooks.	In the Investigation Sheet, students are assessed on the use of appropriate tools to analyze information, including lab notebooks.
328	(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	(Ivii) use appropriate tools to analyze information, including other equipment as needed	TX2_USSSM030104	Physical Properties (TX2_USSSM030104)	In the Activity Object, students use appropriate tools to analyze information, including equipment such as a scale to measure mass, and a beaker to measure volume. Students also use a bulb, a voltage source, and wires, to determine electrical conductivity.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
329	(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	(Ivii) use appropriate tools to analyze information, including other equipment as needed	TX2_USSXP110302	Color Absorption and Reflection: Light into Heat Energy (TX2_USSXP110302)	In the Activity Object, students use appropriate tools to analyze information, including equipment such as light bulbs and thermometers.	During the Activity Object, students are asked to provide responses with regard to the correct use of equipment. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
330	(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	(Ivii) use appropriate tools to analyze information, including other equipment as needed	TX2_USSXP040202	Light Intensity and Distance from the Source (TX2_USSXP040202)	In the Activity Object, students use appropriate tools to analyze information, including equipment such as a light source and photovoltaic battery.	In Part 2 of the Activity Object, students are asked to provide responses with regard to the correct use of equipment. These responses are assessed by the Activity Object software, which provides appropriate feedback as students work through the exercises.
331	(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	(Ivii) use appropriate tools to analyze information, including other equipment as needed	TX2_USSAN200111	Water Test Kits (TX2_USSAN200111)	In the Lab Sheet, students must use a digital timer, pH test strips, markers, tape, and beakers.	The Lab Sheet assesses students on their correct use of pH strips, markers, tape (for making labels), beakers, and a digital timer.
332	(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:	(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	(i) use preventative safety equipment, including chemical splash goggles	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	In Part 2 of the Activity Object, students are use preventative safety equipment, including chemical splash goggles.	In the Activity Sheet, students are assessed on the proper use of preventative safety equipment, including chemical splash goggles.
333	(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:	(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	 (i) use preventative safety equipment, including chemical splash goggles 	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)		In the Enrichment Sheet, students are assessed on the proper use of preventative safety equipment, including chemical splash goggles.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
334	(4) Science investigation and reasoning.	(B) use preventative safety equipment,	(i) use preventative	Ren Number	Component	Learning component Description	Assessment component Description
	The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	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	safety equipment, including chemical splash goggles	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	The Lab Sheet teaches students to use preventative safety equipment, including chemical splash goggles.	The Lab Sheet asks a question about the proper use of preventative safety equipment, including chemical splash goggles.
335	(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:	(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	(i) use preventative safety equipment, including chemical splash goggles	TX2_USSSM190106	Interactions Among Organisms - Competition (TX2_USSSM190106)	The Lab Sheet teaches students to use preventative safety equipment, including chemical splash goggles.	The Lab Sheet asks a question about the proper use of preventative safety equipment, including chemical splash goggles.
336	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	In Part 2 of the Activity Object, students use preventative safety equipment, including aprons.	In the Activity Sheet, students are asked a question about the proper use of preventative safety equipment, including aprons.
337	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 1 teaches students the proper use of preventative safety equipment, including aprons.	In Enrichment Sheet 1, students are asked a question about the proper use of preventative safety equipment, including aprons.
338	(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:	(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	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	The Lab Sheet teaches students to use preventative safety equipment, including aprons.	The Lab Sheet asks a question about the proper use of preventative safety equipment, including aprons.
339	(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:	(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	TX2_USSSM190106	Interactions Among Organisms - Competition (TX2_USSSM190106)	The Lab Sheet teaches students to use preventative safety equipment, including aprons.	The Lab Sheet asks a question about the proper use of preventative safety equipment, including aprons.
340	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	In Part 2 of the Activity Object, students use preventative safety equipment, including gloves.	In the Activity Sheet, students are assessed on the proper use of preventative safety equipment, including gloves.
341	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 1 teaches the proper use of preventative safety equipment, including gloves.	In Enrichment Sheet 1, students are assessed on the proper use of preventative safety equipment, including gloves.
342	(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:	(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	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	The Lab Sheet teaches students to use preventative safety equipment, including gloves.	The Lab Sheet asks a question about the proper use of preventative safety equipment, including gloves.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
 343	(4) Science investigation and reasoning.	(B) use preventative safety equipment,	(iii) use preventative	item Number	Somponent	Learning component Description	Assessment component bescription
	The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	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	safety equipment, including gloves	TX2_USSSM190106	Interactions Among Organisms - Competition (TX2_USSSM190106)	The Lab Sheet teaches students to use preventative safety equipment, including gloves.	The Lab Sheet asks a question about the proper use of preventative safety equipment, including gloves.
344	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	The Activity Object teaches students to be prepared to use emergency safety equipment, including an eye/face wash.	In the Activity Sheet, students are assessed on their preparedness to use emergency safety equipment, including an eye/face wash.
345	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 1 teaches students to be prepared to use emergency safety equipment, including an eye/face wash.	
346	(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:	(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	TX2_USSAN190101	Biotic and Abiotic Factors in Ecosystems (TX2_USSAN190101)	The Lab Sheet teaches students to be prepared to use emergency safety equipment, including an eye/face wash.	The Lab Sheet asks a question about the proper use of emergency safety equipment, including an eye/face wash.
347	(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:	(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 	TX2_USSSM190106	Interactions Among Organisms - Competition (TX2_USSSM190106)	The Lab Sheet teaches students to be prepared to use emergency safety equipment, including an eye/face wash.	
348	(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:	(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 	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	The Activity Object teaches students to be prepared to use emergency safety equipment, including a fire blanket.	In the Activity Sheet, students are asked questions that assess their preparedness to use emergency safety equipment, including a fire blanket.
349	(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:	(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 	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 1 teaches the proper use of preventative safety equipment, including a fire blanket.	Enrichment Sheet 1 assesses the proper use of emergency safety equipment, including a fire blanket
350	(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:	(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	TX2_USSSM200101	Laboratory Safety (TX2_USSSM200101)	Enrichment Sheet 2 teaches the proper use of preventative safety equipment, including a fire blanket.	Enrichment Sheet 2 assesses the proper use of emergency safety equipment, including a fire blanket
351	(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:	(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 	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	The Lab Sheet teaches students to be prepared to use emergency safety equipment, including a fire blanket.	The Lab Sheet asks a question about the proper use of emergency safety equipment, including a fire blanket.
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	TEVE (Vnowladze and Skills)	Student Function	Breekeut	How Number	Commonant	Looming Component Description	According to Company Department
# 352	TEKS (Knowledge and Skills) (4) Science investigation and reasoning.	Student Expectation (B) use preventative safety equipment,	Breakout (v) be prepared to use	Item Number	Component	Learning Component Description	Assessment Component Description
002	The student knows how to use a variety of tools and safety equipment to conduct science inquiry. The student is expected to:	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	emergency safety equipment, including a fire blanket	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	The Lab Sheet teaches students to be prepared to use emergency safety equipment, including a fire blanket.	The Lab Sheet asks a question about the proper use of emergency safety equipment, including a fire blanket.
353	(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:	(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	TX2_USSAN190103	Competition in Ecosystems (TX2_USSAN190103)	The Lab Sheet teaches students to be prepared to use emergency safety equipment, including a fire extinguisher.	The Lab Sheet asks a question about the proper use of emergency safety equipment, including a fire extinguisher.
354	(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:	(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	TX2_USSSM010502	Atomic Model History: From Rutherford to Bohr (TX2_USSSM010502)	The Lab Sheet teaches students to be prepared to use emergency safety equipment, including a fire extinguisher.	The Lab Sheet asks a question about the proper use of emergency safety equipment, including a fire extinguisher.
355	(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		TX2_USSXP160101	Plants' Needs for Photosynthesis (TX2_USSXP160101)	The Activity Object teaches students to recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis.	
356	(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		TX2_USSXP160102	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_USSXP160102)	The Activity Object teaches students to recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis.	
357	(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		TX2_USSXP160103	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_USSXP160103)	In the Activity Object, students recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis.	
358	(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		TX2_USSXP160110	Factors Influencing Photosynthesis: Temperature (TX2_USSXP160110)	In the Activity Object, students recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis.	
359	(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		TX2_USSAN160106	Aerobic Respiration and Photosynthesis (TX2_USSAN160106)	The Activity Object teaches students to recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis.	The Question-Answer Sheet assesses students' ability to recognize that radiant energy from the sun is transformed into chemical energy through the process of photosynthesis.
360	(5) Matter and energy. The student knows that 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	TX2_USSAN190108	Carbon Cycle (TX2_USSAN190108)	The Animation demonstrates the cycling of matter, specifically carbon, within living systems.	In the Question-Answer Sheet, students are asked to demonstrate the cycling of carbon within living systems.
361	(5) Matter and energy. The student knows that 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	TX2_USSAN190108	Carbon Cycle (TX2_USSAN190108)	The Enrichment Sheet demonstrates the cycling of matter within living systems.	The Enrichment Sheet assesses the cycling of matter within living systems.
362	(5) Matter and energy. The student knows that 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	TX2_USSAN130301	The Water Cycle (TX2_USSAN130301)	The Animation demonstrates the cycling of matter, specifically water, within living systems.	
363	(5) Matter and energy. The student knows that 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	TX2_USSAN190109	Nitrogen Cycle (TX2_USSAN190109)	The Animation demonstrates the cycling of matter, specifically nitrogen, within living systems.	In the Question-Answer Sheet, the student is asked to demonstrate the cycling of nitrogen within living systems.
364	(5) Matter and energy. The student knows that 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	TX2_USSAN190109	Nitrogen Cycle (TX2_USSAN190109)	The Enrichment Sheet demonstrates the cycling of matter, specifically nitrogen, within living systems.	The Enrichment Sheet assesses students' ability to demonstrate the cycling of nitrogen within living systems.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
365	(5) Matter and energy. The student knows	(B) demonstrate and explain the cycling	(ii) explain the cycling of				Q1 of the Question-Answer Sheet asks
	that interactions occur between matter and energy. The student is expected to:	of matter within living systems such as in the decay of biomass in a compost bin	matter within living systems	TX2_USSAN190108	Carbon Cycle (TX2_USSAN190108)	The Animation explains the cycling of matter, specifically carbon, within living systems.	students to explain the role of producers, consumers, and decomposers in the cycling of carbon within living systems.
366	(5) Matter and energy. The student knows that 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	TX2_USSAN190108	Carbon Cycle (TX2_USSAN190108)	The Enrichment Sheet explains the cycling of carbon within living systems.	In the Enrichment Sheet, students are asked to explain the cycling of carbon within living systems.
367	(5) Matter and energy. The student knows that 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	TX2_USSAN130301	The Water Cycle (TX2_USSAN130301)	The Animation explains the cycling of matter, specifically water, within living systems.	
368	(5) Matter and energy. The student knows that 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	TX2_USSAN190109	Nitrogen Cycle (TX2_USSAN190109)	The Animation explains the cycling of matter, specifically nitrogen, within living systems.	Q1 of the Question-Answer Sheet asks students to explain how bacteria help cycle nitrogen within living systems.
369	(5) Matter and energy. The student knows that 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	TX2_USSAN190109	Nitrogen Cycle (TX2_USSAN190109)	The Enrichment Sheet explains the cycling of matter, specifically nitrogen, within living systems.	The Enrichment Sheet contains questions in which students must explain the cycling of nitrogen within living systems.
370	(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 	TX2_USSSM190201	The Energy Flow from Producers to Consumers (TX2_USSSM190201)	The Activity Object explains how to diagram the flow of energy through living systems, including food chains.	
371	(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 	TX2_USSAN190201	Food Chains and Food Webs (TX2_USSAN190201)	The Animation diagrams the flow of energy through living systems, including food chains.	In the Question-Answer Sheet, students are asked to diagram the flow of energy through living systems, including food chains.
372	(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 	TX2_USSAN190201	Food Chains and Food Webs (TX2_USSAN190201)		In the Enrichment Sheet, students are asked to diagram the flow of energy through living systems, including food chains.
373	(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 	TX2_USSAN160111	Importance of Protista (TX2_USSAN160111)	The Animation diagrams the flow of energy through living systems, including food chains.	In the Enrichment Sheet, students are asked to diagram the flow of energy through living systems, including food chains.
374	(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	 (ii) diagram the flow of energy through living systems, including food webs 	TX2_USSAN190201	Food Chains and Food Webs (TX2_USSAN190201)	The Animation diagrams the flow of energy through living systems, including food webs.	In the Question-Answer Sheet, students are asked to diagram the flow of energy through living systems, including food webs.
375	(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	 (ii) diagram the flow of energy through living systems, including food webs 	TX2_USSAN190201	Food Chains and Food Webs (TX2_USSAN190201)		In the Enrichment Sheet, students are asked to diagram the flow of energy through living systems, including food webs.
376	(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	 (ii) diagram the flow of energy through living systems, including food webs 	TX2_USSAN160111	Importance of Protista (TX2_USSAN160111)	The Animation diagrams the flow of energy through living systems, including food webs.	In the Enrichment Sheet, students are asked to diagram the flow of energy through living systems, including food webs.
377	(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	(iii) diagram the flow of energy through living systems, including energy pyramids	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)	The Animation diagrams the flow of energy through living systems, including energy pyramids	In the Question-Answer Sheet, students are asked questions in which they must diagram the flow of energy through living systems, including energy pyramids.
378	(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	(iii) diagram the flow of energy through living systems, including energy pyramids	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)		In Enrichment Sheet 1, students are asked questions in which they must diagram the flow of energy through living systems, including energy pyramids.
379	(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	(iii) diagram the flow of energy through living systems, including energy pyramids	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)		In Enrichment Sheet 2, students are asked questions in which they must diagram the flow of energy through living systems, including energy pyramids.

#	TEKS (Knowledge and Skille)	Student Expectation	Proskout	Itom Number	Component	Loorning Component Description	According to Compensate Description
# 380	TEKS (Knowledge and Skills) (5) Matter and energy. The student knows	Student Expectation (C) diagram the flow of energy through	Breakout (iii) diagram the flow of	Item Number	Component	Learning Component Description	Assessment Component Description
300	that interactions occur between matter and energy. The student is expected to:	living systems, including food chains, food webs, and energy pyramids	energy through living systems, including energy pyramids	TX2_USSSM190201	The Energy Flow from Producers to Consumers (TX2_USSSM190201)		Q3 of the Activity Sheet requires students to diagram the flow of energy through an energy pyramid.
381	(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	(iii) diagram the flow of energy through living systems, including energy pyramids	TX2_USSAN190201	Food Chains and Food Webs (TX2_USSAN190201)		Q7 of the Enrichment Sheet requires students to diagram the flow of energy through an energy pyramid.
382	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	 (i) identify that organic compounds contain carbon 	TX2_USSAN160107	Carbon and Carbohydrates (TX2_USSAN160107)	The Animation teaches students to identify that organic compounds, such as carbohydrates, contain carbon.	Q1 in the Question-Answer Sheet asks students to name the types of atoms that are found in carbohydrates, thereby requiring them to identify that organic compounds contain carbon.
383	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(i) identify that organic compounds contain carbon	TX2_USSAN160108	Hydrolysis (TX2_USSAN160108)	The Animation teaches students to identify that organic compounds, such as carbohydrates, proteins, and lipids, contain carbon.	
384	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(i) identify that organic compounds contain carbon	TX2_USSAN160108	Hydrolysis (TX2_USSAN160108)		The Enrichment Sheet assesses the students' ability to identify that different organic compounds contain carbon
385	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(i) identify that organic compounds contain carbon	TX2_USSAN160109	Proteins (TX2_USSAN160109)	The Animation teaches students to identify that organic compounds, such as proteins, contain carbon.	Q1 of the Question-Answer Sheet asks students to name the types of atoms that are found in proteins, thereby requiring them to identify that organic compounds contain carbon.
386	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(i) identify that organic compounds contain carbon	TX2_USSAN160110	Lipids (TX2_USSAN160110)	The Animation teaches students to identify that organic compounds, such as lipids, contain carbon.	Q1 in the Question-Answer Sheet asks students to name the types of atoms that are found in lipids, thereby requiring them to identify that organic compounds contain carbon.
387	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(ii) identify that organic compounds contain other elements	TX2_USSAN160107	Carbon and Carbohydrates (TX2_USSAN160107)	The Animation teaches students to identify that organic compounds, such as carbohydrates, also contain hydrogen and oxygen.	Q1 of the Question-Answer Sheet asks students to name the types of atoms that are found in carbohydrates, thereby requiring them to identify that organic compounds contain other elements.
388	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(ii) identify that organic compounds contain other elements	TX2_USSAN160108	Hydrolysis (TX2_USSAN160108)	The Animation teaches students to identify that organic compounds, such as carbohydrates, proteins, and lipids, contain other elements.	ability to identify that different organic
389	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(ii) identify that organic compounds contain other elements	TX2_USSAN160110	Lipids (TX2_USSAN160110)	The Animation teaches students to identify that organic compounds, such as lipids, contain other elements such as hydrogen, oxygen, phosphorus, and nitrogen.	Q1 in the Question-Answer Sheet asks students to name the types of atoms that are found in organic compounds, such as lipids. Students should be able to identify that organic compounds contain other elements, such as hydrogen and oxygen.
390	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(A) identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	(ii) identify that organic compounds contain other elements	TX2_USSAN160109	Proteins (TX2_USSAN160109)	The Animation teaches students to identify that organic compounds, such as proteins, contain other elements such as carbon, hydrogen, oxygen, and nitrogen.	Q1 in the Question-Answer Sheet asks students to name the types of atoms that are found in organic compounds, such as proteins. Students should be able to identify that organic compounds contain other elements such as hydrogen, oxygen, and nitrogen.
391	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(B) distinguish between physical and chemical changes in matter in the digestive system		TX2_USSSM160602	Digestive System (TX2_USSSM160602)	Enrichment Sheet 1 teaches students to distinguish between physical and chemical changes in matter in the digestive system.	Enrichment Sheet 1 assesses students' ability to distinguish between physical and chemical changes in matter in the digestive system.

#	FEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
392	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(B) distinguish between physical and chemical changes in matter in the digestive system		TX2_USSSM160602	Digestive System (TX2_USSSM160602)	Enrichment Sheet 2 teaches students to distinguish between physical and chemical changes in matter in the digestive system.	Enrichment Sheet 2 assesses students' ability to distinguish between physical and chemical changes in matter in the digestive system.
393	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(B) distinguish between physical and chemical changes in matter in the digestive system		TX2_USSSM160602	Digestive System (TX2_USSSM160602)	The Lab Sheet teaches students to distinguish between physical and chemical changes in matter in the digestive system.	The Lab Sheet assesses students' ability to distinguish between physical and chemical changes in matter in the digestive system.
394	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(B) distinguish between physical and chemical changes in matter in the digestive system		TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)	Enrichment Sheet 1 teaches students to distinguish between physical and chemical changes in matter in the digestive system.	Q8 of Enrichment Sheet 1 assesses students' ability to distinguish between physical and chemical changes in matter in the digestive system.
395	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(B) distinguish between physical and chemical changes in matter in the digestive system		TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)	Enrichment Sheet 2 teaches students to distinguish between physical and chemical changes in matter in the digestive system.	Q7 of Enrichment Sheet 2 assesses students' ability to distinguish between physical and chemical changes in matter in the digestive system.
396	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	(i) recognize how large molecules are broken down into smaller molecules	TX2_USSAN160108	Hydrolysis (TX2_USSAN160108)	The Animation teaches students to recognize how large molecules are broken down into smaller molecules.	The Question-Answer Sheet contains assessment items that require students to recognize how several types of large molecules are broken down into smaller molecules.
397	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	(i) recognize how large molecules are broken down into smaller molecules	TX2_USSAN160108	Hydrolysis (TX2_USSAN160108)		The Enrichment Sheet contains assessment items that require students to recognize how several types of large molecules are broken down into smaller molecules.
398	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	(i) recognize how large molecules are broken down into smaller molecules	TX2_USSSM160602	Digestive System (TX2_USSSM160602)		The Activity Sheet contains assessment items that require students to recognize how large molecules are broken down into smaller molecules by the digestive system.
399	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	(i) recognize how large molecules are broken down into smaller molecules	TX2_USSSM160602	Digestive System (TX2_USSSM160602)	Enrichment Sheet 1 teaches students how carbohydrates are broken down into smaller sugar molecules.	Q4 and Q5 of Enrichment Sheet 1 assess students on their understanding of how carbohydrates are broken down into smaller sugar molecules.
400	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	(i) recognize how large molecules are broken down into smaller molecules	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)	Enrichment Sheet 2 teaches students how food molecules are broken down into smaller molecules.	Q3 of Enrichment Sheet 2 assesses students on their understanding of how food molecules are broken down into smaller molecules.
401	(6) Matter and energy. The student knows that matter has physical and chemical properties and can undergo physical and chemical changes. The student is expected to:	(C) recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	(i) recognize how large molecules are broken down into smaller molecules	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)	Enrichment Sheet 1 teaches students how food molecules are broken down into smaller molecules.	Q5 of Enrichment Sheet 1 assesses students on their understanding of how food molecules are broken down into smaller molecules.
402	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(A) contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still	(i) contrast situations where work is done with different amounts of force to situations where no work is done	TX2_USSSM090101	Work (TX2_USSSM090101)	of force to situations where no work is	The Activity Sheet contains assessment items that ask students to contrast situations where work is done with different amounts of force to situations where no work is done.
403	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(A) contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still	(i) contrast situations where work is done with different amounts of force to situations where no work is done	TX2_USSSM090101	Work (TX2_USSSM090101)	The Enrichment Sheet contrasts situations where work is done with different amounts of force to situations where no work is done.	The Enrichment Sheet contains assessment items that ask students to contrast situations where work is done with different amounts of force to situations where no work is done.

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	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
404	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(B) illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion	(i) illustrate the transformation of energy within an organism	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)	The Animation illustrates the transformation of energy within an organism.	In the Question-Answer Sheet, students are asked to illustrate the transformation of energy within an organism.
405	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(B) illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion	(i) illustrate the transformation of energy within an organism	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)		In Enrichment Sheet 1, students are asked to illustrate the transformation of energy within an organism.
406	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(B) illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion	(i) illustrate the transformation of energy within an organism	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)		In Enrichment Sheet 2, students are asked to illustrate the transformation of energy within an organism.
407	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(B) illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion	(i) illustrate the transformation of energy within an organism	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)		Q2 of Enrichment Sheet 2 asks students to illustrate the flow and transformation of energy within an organism.
408	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(B) illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion	(i) illustrate the transformation of energy within an organism	TX2_USSSM160602	Digestive System (TX2_USSSM160602)		Q6 of Enrichment Sheet 1 asks students to illustrate the transformation of energy within the stomach.
409	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(i) demonstrate forces that affect motion in everyday life	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	The Activity Object teaches students to demonstrate how forces, such as phototropism, affect motion in everyday life.	
410	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(i) demonstrate forces that affect motion in everyday life	TX2_USSAN160303	Nastic Movement (TX2_USSAN160303)	The Animation teaches students to demonstrate how forces, such as nastic movement, affect motion in everyday life.	
411	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(i) demonstrate forces that affect motion in everyday life	TX2_USSAN160305	Thigmotropism in Plants (TX2_USSAN160305)	The Animation teaches students to demonstrate how forces, such as thigmotropism, affect motion in everyday life.	
412	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(i) demonstrate forces that affect motion in everyday life	TX2_USSSM080106	Friction (TX2_USSSM080106)	The Enrichment Sheet demonstrates forces, such as friction, that affect motion in everyday life.	The Enrichment Sheet asks a question that requires students to demonstrate forces, such as friction, that affect motion in everyday life.
413	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(ii) illustrate forces that affect motion in everyday life	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)	The Activity Object teaches students to illustrate how forces, such as phototropism, affect motion in everyday life.	Q3 in the "Thinking About the Activity Object" section of the Activity Sheet asks students to illustrate the forces that affect the motion of a germinating plant as it pushes toward the surface of the soil.
414	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(ii) illustrate forces that affect motion in everyday life	TX2_USSAN160303	Nastic Movement (TX2_USSAN160303)	The Animation teaches students to illustrate how forces, such as nastic movement, affect motion in everyday life.	Q5 in the "After the Animation" section of the Question-Answer Sheet asks students to illustrate the forces that affect the motion of a Venus fly trap.
415	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(ii) illustrate forces that affect motion in everyday life	TX2_USSAN160305	Thigmotropism in Plants (TX2_USSAN160305)	The Animation teaches students to illustrate how forces, such as thigmotropism, affect motion in everyday life.	Q5 in the "After the Animation" section of the Question-Answer Sheet asks students to illustrate the forces that affect thigmotropism in ivy.
416	(7) Force, motion, and energy. The student knows that there is a relationship among force, motion, and energy. The student is expected to:	(C) demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	(ii) demonstrate forces that affect motion in everyday life	TX2_USSSM080106	Friction (TX2_USSSM080106)	The Enrichment Sheet illustrates forces, such as friction, that affect motion in everyday life.	The Enrichment Sheet asks a question that requires students to illustrate forces, such as friction, that affect motion in everyday life.

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# 417	TEKS (Knowledge and Skills) (7) Force, motion, and energy. The student	Student Expectation (C) demonstrate and illustrate forces	Breakout (ii) illustrate forces that	Item Number	Component	Learning Component Description	Assessment Component Description
	knows that there is a relationship among force, motion, and energy. The student is expected to:	that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	affect motion in everyday life	TX2_USSAN160404	Water Transport in Plants (TX2_USSAN160404)	The Animation teaches students to illustrate forces, such as root pressure, capillary action, and transpiration, that affect motion in everyday life.	
418	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(A) predict and describe how different types of catastrophic events impact ecosystems such as floods, hurricanes, or tornadoes	(i) predict how different types of catastrophic events impact ecosystems	TX2_USSAN180105	The Effects of Natural Disasters on Ecosystems (TX2_USSAN180105)	The Animation enables students to predict how different types of catastrophic events, such as volcanic eruptions, storms, and floods, impact ecosystems.	The Question-Answer Sheet assesses students on their ability to predict how different types of catastrophic events, such as volcanic eruptions, storms, and floods, impact ecosystems.
419	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(A) predict and describe how different types of catastrophic events impact ecosystems such as floods, hurricanes, or tornadoes	(ii) describe how different types of catastrophic events impact ecosystems	TX2_USSAN180105	The Effects of Natural Disasters on Ecosystems (TX2_USSAN180105)	The Animation describes how different types of catastrophic events, such as volcanic eruptions, storms, and floods, impact ecosystems.	The Question-Answer Sheet assesses students on their ability to describe how different types of catastrophic events, such as volcanic eruptions, storms, and floods, impact ecosystems.
420	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	(i) analyze the effects of weathering on the environment in ecoregions of Texas	TX2_USSAN130201	Erosion and Deposition of the Environment in Texas (TX2_USSAN130201)	The Animation provides information that enables students to analyze the effects of weathering on the environment in ecoregions of Texas.	The Question-Answer Sheet assesses students' ability to analyze the effects of weathering on the environment in ecoregions of Texas.
421	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	(i) analyze the effects of weathering on the environment in ecoregions of Texas	TX2_USSAN130201	Erosion and Deposition of the Environment in Texas (TX2_USSAN130201)	The Enrichment Sheet provides information that enables students to analyze the effects of weathering on the environment in ecoregions of Texas.	The Enrichment Sheet asks a question in which students must analyze the effects of weathering on the environment in ecoregions of Texas.
422	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	(ii) analyze the effects of erosion on the environment in ecoregions of Texas	TX2_USSAN130201	Erosion and Deposition of the Environment in Texas (TX2_USSAN130201)	The Animation provides information that enables students to analyze the effects of erosion on the environment in ecoregions of Texas.	The Question-Answer Sheet asks students to analyze the effects of erosion on the environment in ecoregions of Texas.
423	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	(ii) analyze the effects of erosion on the environment in ecoregions of Texas	TX2_USSAN130201	Erosion and Deposition of the Environment in Texas (TX2_USSAN130201)	The Enrichment Sheet provides information that enables students to analyze the effects of erosion on the environment in ecoregions of Texas.	The Enrichment Sheet asks a question in which students analyze the effects of erosion on the environment in ecoregions of Texas
424	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	(iii) analyze the effects of deposition on the environment in ecoregions of Texas	TX2_USSAN130201	Erosion and Deposition of the Environment in Texas (TX2_USSAN130201)	The Animation analyzes the effects of deposition on the environment in ecoregions of Texas.	The Question-Answer Sheet asks students to analyze the effects of deposition on the environment in ecoregions of Texas.
425	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(B) analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	(iii) analyze the effects of deposition on the environment in ecoregions of Texas	TX2_USSAN130201	Erosion and Deposition of the Environment in Texas (TX2_USSAN130201)	The Enrichment Sheet provides information that allows students to analyze the effects of deposition on the environment in ecoregions of Texas.	The Enrichment Sheet asks a question in which students analyze the effects of deposition on the environment in ecoregions of Texas.
426	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(C) model the effects of human activity on groundwater and surface water in a watershed	(i) model the effects of human activity on groundwater in a watershed	TX2_USSAN150102	Groundwater and Surface Water (TX2_USSAN150102)	The Animation explains the effects of human activity on groundwater in a watershed.	The Question-Answer Sheet asks questions about the effects of human activity on groundwater in a watershed.
427	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(C) model the effects of human activity on groundwater and surface water in a watershed	(i) model the effects of human activity on groundwater in a watershed	TX2_USSAN150102	Groundwater and Surface Water (TX2_USSAN150102)	In the Investigation Sheet, students complete an activity to model the effects of human activity on groundwater in a watershed.	The Investigation Sheet assesses students' ability to complete an activity in which they model the effects of human activity on groundwater in a watershed.
428	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(C) model the effects of human activity on groundwater and surface water in a watershed	watershed	TX2_USSAN150102	Groundwater and Surface Water (TX2_USSAN150102)	The Enrichment Sheet contains an activity in which students model the effects of human activity on groundwater in a watershed.	In the Enrichment Sheet, students are assessed on their ability to complete a model on the effects of human activity on groundwater in a watershed.
429	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(C) model the effects of human activity on groundwater and surface water in a watershed	(ii) model the effects of human activity on surface water in a watershed	TX2_USSAN150102	Groundwater and Surface Water (TX2_USSAN150102)	The Animation explains the effects of human activity on surface water in a watershed.	The Question-Answer Sheet asks questions about the effects of human activity on surface water in a watershed.
430	(8) Earth and space. The student knows that natural events and human activity can impact Earth systems. The student is expected to:	(C) model the effects of human activity on groundwater and surface water in a watershed	(ii) model the effects of human activity on surface water in a watershed	TX2_USSAN150102	Groundwater and Surface Water (TX2_USSAN150102)	The Enrichment Sheet includes an activity in which students model the effects of human activity on surface water in a watershed.	In the Enrichment Sheet, students are assessed on their ability to complete a model on the effects of human activity on surface water in a watershed.

# 431	TEKS (Knowledge and Skills) (9) Earth and space. The student knows	Student Expectation (A) analyze the characteristics of	Breakout (i) analyze the	Item Number	Component	Learning Component Description	Assessment Component Description
431	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(A) analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere	(i) analyze the characteristics of objects in our solar system that allow life to exist	TX2_USSSM150207	Star Types: In Search of Habitability (TX2_USSSM150207)	Enrichment Sheet 1 teaches students the characteristics of objects in our solar system that allow life to exist.	Q1 and Q2 of Enrichment Sheet 1 assess students' understanding of the characteristics of objects in our solar system that allow life to exist.
432	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(A) analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere	 (i) analyze the characteristics of objects in our solar system that allow life to exist 	TX2_USSAN150216	Rockets (TX2_USSAN150216)	The Enrichment Sheet teaches students the characteristics of objects in our solar system that allow life to exist.	The Enrichment Sheet assesses students' understanding of the characteristics of objects in our solar system that allow life to exist.
433	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(A) analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere	(i) analyze the characteristics of objects in our solar system that allow life to exist	TX2_USSAN150110	First Man on the Moon (TX2_USSAN150110)	The Enrichment Sheet teaches students the characteristics of objects in our solar system that allow life to exist.	The Enrichment Sheet assesses students' understanding of the characteristics of objects in our solar system that allow life to exist.
434	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(B) identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration		TX2_USSSM150207	Star Types: In Search of Habitability (TX2_USSSM150207)	Enrichment Sheet 1 identifies the accommodations, considering the characteristics of our solar system, that enabled manned space exploration.	Q3 of Enrichment Sheet 1 assesses students' understanding of the accommodations that are needed to allow for a manned space probe.
435	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(B) identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration		TX2_USSSM150207	Star Types: In Search of habitability (TX2_USSSM150207)	Enrichment Sheet 2 identifies the accommodations, considering the characteristics of our solar system, that enabled manned space exploration.	Q1 of Enrichment Sheet 2 assesses students' understanding of the accommodations needed to allow for a manned space ship to approach an area near the sun.
436	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(B) identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration		TX2_USSSM150207	Star Types: In Search of Habitability (TX2_USSSM150207)		Q3 of the Activity Sheet asks students what accommodations are needed for mankind to inhabit a planet in the habitable zone.
437	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(B) identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration		TX2_USSAN150216	Rockets (TX2_USSAN150216)	The Enrichment Sheet identifies the accommodations, considering the characteristics of our solar system, that enabled manned space exploration.	The Enrichment Sheet assesses students' understanding of the accommodations needed for space travel.
438	(9) Earth and space. The student knows components of our solar system. The student is expected to:	(B) identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration		TX2_USSAN150110	First Man on the Moon (TX2_USSAN150110)	The Enrichment Sheet identifies the accommodations, considering the characteristics of our solar system, that enabled manned space exploration.	The Enrichment Sheet assesses students' understanding of the accommodations needed for space travel.
439	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(A) observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms	 (i) observe how different environments, including microhabitats in schoolyards, support different varieties of organisms 	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)	The Animation shows students different environments, including deserts and tropical forests, and students observe how the environments support different varieties of organisms.	In the Enrichment Sheet, students are asked to observe and describe a microhabitat found in a schoolyard.
440	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(A) observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms	 (ii) observe how different environments, including biomes, support different varieties of organisms 	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)	The Animation shows students different environments, including biomes, and students observe how the environments support different varieties of organisms.	
441	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(A) observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms	 (ii) observe how different environments, including biomes, support different varieties of organisms 	TX2_USSAN190111	Earth's Biomes (TX2_USSAN190111)	In the Animation, students observe how different environments, including biomes, support different varieties of organisms.	In the Question-Answer Sheet, students are assessed on their observations and responses with regard to how different environments, including biomes, support different varieties of organisms.
442	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(A) observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms	 (iii) describe how different environments, including microhabitats in schoolyards, support different varieties of organisms 	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)	The Animation describes how different environments, including deserts and tropical forests, support different varieties of organisms.	In the Enrichment Sheet, students are asked to observe and describe a microhabitat found in a schoolyard.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
# 443	(10) Organisms and environments. The	(A) observe and describe how different	(iv) describe how different	Rom Humber		Learning component description	
	student knows that there is a relationship between organisms and the environment. The student is expected to:	environments, including microhabitats in schoolyards and biomes, support different varieties of organisms	environments, including biomes, support different varieties of organisms	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)	The Animation describes how different environments, including biomes, support different varieties of organisms.	In the Question-Answer Sheet, students are asked to describe how different environments, including biomes, support different varieties of organisms.
444	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(B) describe how biodiversity contributes to the sustainability of an ecosystem	(i) describe how biodiversity contributes to the sustainability of an ecosystem	TX2_USSAN180201	The Importance of Biodiversity (TX2_USSAN180201)	The Animation describes how biodiversity contributes to the sustainability of an ecosystem.	In the Question-Answer Sheet, students are asked to describe how biodiversity contributes to the sustainability of an ecosystem.
445	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(B) describe how biodiversity contributes to the sustainability of an ecosystem	 (i) describe how biodiversity contributes to the sustainability of an ecosystem 	TX2_USSAN180201	The Importance of Biodiversity (TX2_USSAN180201)		Q5 of Enrichment Sheet 1 asks students to describe how biodiversity contributes to the sustainability of an ecosystem.
446	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(B) describe how biodiversity contributes to the sustainability of an ecosystem	 (i) describe how biodiversity contributes to the sustainability of an ecosystem 	TX2_USSAN180201	The Importance of Biodiversity (TX2_USSAN180201)		Q2 of Enrichment Sheet 2 asks students to describe how biodiversity contributes to the sustainability of an ecosystem.
447	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(B) describe how biodiversity contributes to the sustainability of an ecosystem	 (i) describe how biodiversity contributes to the sustainability of an ecosystem 	TX2_USSSM180101	Natural Selection (TX2_USSSM180101)	The Enrichment Sheet explains how biodiversity contributes to the sustainability of an ecosystem.	Q7 of the Enrichment Sheet assesses students' understanding of how biodiversity contributes to the sustainability of an ecosystem.
448	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(B) describe how biodiversity contributes to the sustainability of an ecosystem	 (i) describe how biodiversity contributes to the sustainability of an ecosystem 	TX2_USSAN190201	Food Chains and Food Webs (TX2_USSAN190201)	The Enrichment Sheet explains how biodiversity contributes to the sustainability of an ecosystem.	Q6 of the Enrichment Sheet assesses students' understanding of how biodiversity contributes to the sustainability of an ecosystem.
449	student is expected to:	(C) observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds	(i) observe the role of ecological succession	TX2_USSAN180102	Ecological Succession (TX2_USSAN180102)	In the Animation, students observe the role of ecological succession.	In the Question-Answer Sheet, students are assessed on their observations regarding the role of ecological succession. In the Enrichment Sheet, students are asked to record the role of ecological succession.
450	(10) Organisms and environments. The student knows that there is a relationship between organisms and the environment. The student is expected to:	(C) observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds	(ii) record the role of ecological succession	TX2_USSAN180102	Ecological Succession (TX2_USSAN180102)	In the Animation, students record the role of ecological succession.	In the Question-Answer Sheet, students are asked to record the role of ecological succession. In the Enrichment Sheet, students are asked to record the role of ecological succession.
	student is expected to:	(C) observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds	(iii) describe the role of ecological succession	TX2_USSAN180102	Ecological Succession (TX2_USSAN180102)	The Animation describes the role of ecological succession.	In the Question-Answer Sheet, students are asked to describe the role of ecological succession. In the Enrichment Sheet, students are asked to describe the role of ecological succession.
452	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	(A) examine organisms or their structures such as insects or leaves and use dichotomous keys for identification	(i) examine organisms or their structures	TX2_USSSM180204	Introduction to Classification (TX2_USSSM180204)	In the Activity Object, students examine organisms and their structures, including the presence of antennas, body type, color, number of legs, and wings of insects.	In the Activity Sheet, students are asked to record and explain the findings of their examinations of organisms and their structures.
453	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	(A) examine organisms or their structures such as insects or leaves and use dichotomous keys for identification	(i) examine organisms or their structures	TX2_USSUN160801	Frog Dissection (TX2_USSUN160801)	In the Activity Object, students examine a frog and its internal structures.	
454	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:		(i) examine organisms or their structures	TX2_USSUN160802	Rat Dissection (TX2_USSUN160802)	In the Activity Object, students examine a rat and its internal structures.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
455	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	(A) examine organisms or their structures such as insects or leaves and use dichotomous keys for identification	 (i) examine organisms or their structures 	TX2_USSSM180202	Classification of Animals (TX2_USSSM180202)	In the Activity Object, students examine organisms and their structures, including the presence of a vertebral column, feathers, jointed limbs, moist skin, fur, a segmented body, and the number of limbs of various animals.	In the Activity Sheet, students are asked to record and explain the findings of their examinations of organisms and their structures.
456	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	(A) examine organisms or their structures such as insects or leaves and use dichotomous keys for identification	(ii) use dichotomous keys for identification	TX2_USSSM180204	Introduction to Classification (TX2_USSSM180204)	In the Activity Object, students use dichotomous keys for the identification of insects.	In the Activity Sheet, students are assessed on their ability to use dichotomous keys for the identification of insects.
457	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	(A) examine organisms or their structures such as insects or leaves and use dichotomous keys for identification	(ii) use dichotomous keys for identification	TX2_USSSM180202	Classification of Animals (TX2_USSSM180202)	In the Activity Object, students use dichotomous keys for the identification of animals.	In the Activity Sheet, students are assessed on their ability to use dichotomous keys for the identification of animals.
458	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	species by comparing external features,	(i) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival	TX2_USSSM180204	Introduction to Classification (TX2_USSSM180204)	The Activity Object explains variations within a population or species by comparing external features of organisms that enhance their survival.	
459	unique traits through gradual processes over	(B) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb	(i) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)	The Animation explains variations within a population or species by comparing external features or physiology of organisms that enhance their survival.	
460	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	enhance their survival such as migration,	(i) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)		The Enrichment Sheet asks students to explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival.
461	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:	(B) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb	(i) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival	TX2_USSSM180105	Biological Adaptations: Bird Beaks (TX2_USSSM180105)	The Activity Object explains variations within a population or species by comparing external features of organisms that enhance their survival.	
462	unique traits through gradual processes over	species by comparing external features, behaviors, or physiology of organisms that	(i) explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival	TX2_USSAN180107	Behavioral and Physiological Adaptations of Organisms (TX2_USSAN180107)	The Animation explains variations within a population or species by comparing behaviors or physiology of organisms that enhance their survival.	
463	(11) Organisms and environments. The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. The student is expected to:		genetic traits that have occurred over several generations through natural	TX2_USSSM180101	Natural Selection (TX2_USSSM180101)	The Activity Object identifies some changes in genetic traits that have occurred over several generations through natural selection.	
464	unique traits through gradual processes over	(C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (Geospiza fortis) or domestic animals	 identify some changes in genetic traits that have occurred over several generations through natural selection 	TX2_USSSM180101	Natural Selection (TX2_USSSM180101)		In the Enrichment Sheet, students are asked to identify some changes in genetic traits that have occurred over several generations through natural selection.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
# 465	(11) Organisms and environments. The	(C) identify some changes in genetic traits	(i) identify some changes in		Component	Learning Component Description	Assessment component Description
	student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over	that have occurred over several generations through natural selection and selective breeding such as the Galapagos	genetic traits that have occurred over several generations through natural selection	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)		Q4 of the Question-Answer Sheet asks students to identify some changes in genetic traits that have occurred over several generations through natural selection.
466	unique traits through gradual processes over	(C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (Geospiza fortis) or domestic animals	 (i) identify some changes in genetic traits that have occurred over several generations through natural selection 	TX2_USSAN180204	General Characteristics of Amphibians (TX2_USSAN180204)		Q5 of the Enrichment Sheet asks students how natural selection could explain genetic changes causing different heart chambers in different animals.
467	unique traits through gradual processes over	selective breeding such as the Galapagos	 (ii) identify some changes in genetic traits that have occurred over several generations through selective breeding 	TX2_USSSM180101	Natural Selection (TX2_USSSM180101)	The Activity Object identifies some changes in genetic traits that have occurred over several generations through selective breeding.	In the Activity Sheet, students are asked to identify some changes in genetic traits that have occurred over several generations through selective breeding.
468	unique traits through gradual processes over	(C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (Geospiza fortis) or domestic animals	(ii) identify some changes in genetic traits that have occurred over several generations through selective breeding	TX2_USSSM180101	Natural Selection (TX2_USSSM180101)		Q5 of the Enrichment Sheet asks students to identify some changes in genetic traits that have occurred over several generations through selective breeding.
469	unique traits through gradual processes over	(C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (Geospiza fortis) or domestic animals	 (ii) identify some changes in genetic traits that have occurred over several generations through selective breeding 	TX2_USSAN180101	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_USSAN180101)		Q5 of the Question-Answer Sheet asks students to identify some changes in genetic traits that have occurred over several generations through selective breeding.
470	unique traits through gradual processes over	(C) identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (Geospiza fortis) or domestic animals	 (ii) identify some changes in genetic traits that have occurred over several generations through selective breeding 	TX2_USSAN180205	General Characteristics of Birds (TX2_USSAN180205)	The Enrichment Sheet identifies some changes in genetic traits that have occurred over several generations through selective breeding.	The Enrichment Sheet asks students a question in which they must identify and explain changes in genetic traits that have occurred over several generations through selective breeding.
471	(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:	(A) investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants	 investigate how internal structures of organisms have adaptations that allow specific functions 	TX2_USSAN180205	General Characteristics of Birds (TX2_USSAN180205)	The Animation investigates how internal structures of organisms have adaptations that allow specific functions.	In the Enrichment Sheet, students are asked to answer questions based on their observations and investigations into how internal structures of organisms have adaptations that allow specific functions.
472	(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:	(A) investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants	 (i) investigate how internal structures of organisms have adaptations that allow specific functions 	TX2_USSAN180205	General Characteristics of Birds (TX2_USSAN180205)	The Lab Sheet contains an investigation into the internal structures of bird wings that allow flight.	The Lab Sheet assesses students' understanding of their investigation into the internal structures of bird wings that allow flight.
473	of organization demonstrate the complementary nature of structure and	(A) investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants	 investigate how internal structures of organisms have adaptations that allow specific functions 	TX2_USSAN180204	General Characteristics of Amphibians (TX2_USSAN180204)	The Animation investigates how internal structures of organisms have adaptations that allow specific functions.	In the Enrichment Sheet, students are asked to answer questions based on their observations and investigations into how internal structures of organisms have adaptations that allow specific functions.
474	(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:	(A) investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants	 (i) investigate how internal structures of organisms have adaptations that allow specific functions 	TX2_USSAN180204	General Characteristics of Amphibians (TX2_USSAN180204)	The Lab Sheet contains an investigation into the structure of the amphibian heart, which has adaptations that allow specific functions.	The Lab Sheet assesses students' understanding of their investigation into the structure of the amphibian heart, which has adaptations that allow specific functions.

475 (12) Organization and encodences and explain how internal student knowlesses (1) Investigate and explain how internal student knowless (1) Investigate and Investigate and Investigate and Investigate and Investigate and Investigate Andin how explain how internal student knowles	nent Component Description
elseker knows hat king systems at all levels of organization demonstrate the complementary nature of structures of organisms have adaptations that has backer to specific functions. The Animation explains how internal specific functions. The Animation explains how internal specific functions. 477 [12] Organization demonstrate the complementary nature of structures and function. The student is expected to complementary nature of structures and function. [A] Interesting and setting the non-internal fits, holdw bornes in brids, or xylem in fails. [A] Interesting and setting the non-internal fits, holdw bornes in brids. [A] Interesting and setting the non-internal fits, or xylem in fails. [A] Interesting and setting the non-internal fits, holdw bornes in brids. [A] Interesting and setting the non-internal fits, or xylem in fails. [A] Interesting and setting the non-internal fits, holdw bornes in brids. [A] Interesting and setting the non-internal fits, or xylem in fails. [A] Interesting and setting the functions. [A] Interesting and setting the funce functions. [A] Interesting and setting and s	heet assesses students' ding of their investigation into res of plants, which have allow specific functions.
student knows that living systems at all levels or organisation demonstrate the complementary nature of structure and function. The student is expected to: in the structure is the control of the systems of the circulatory system, including the circulatory system, including the circulatory system, including the circulatory system. The Animation explains how internal structures of organisms have adaptations in the structure and function. The student is expected to: The Animation explains how internal structures of organisms have adaptations that allow specific functions. The Animation explains how internal structures of organisms have adaptations that allow specific functions. The Animation explains how internal structures of organisms have adaptations that allow specific functions. The Animation explains how internal structures of organisms have adaptations that allow specific functions. The Animation explains how internal structures of the systems of including the circulatory systems. 478 (12) Organisms and environments. The student knows that living systems at all levels function. (6) identify the main functions of the systems of functions of the human organism, including the circulatory system. The Animation identifies the main functions of the human organism, including the circulatory system. The Animation identifies the main functions of the human organism, including the circulatory system. 400 (12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and functions. The student is expected to: inducting the circulatory system in functions of the human organism, including the circulatory system in functions of the systems o	chment Sheet, students are xplain how internal structures of have adaptations that allow nctions.
studen/knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to: systems of the human organism, including the circulatory endocrine systems. TX2_USSAN160402 Blood Circulation (TX2_USSAN160402) The Animation teaches students to identify her main functions. 479 t12 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: (i) identify the main functions of the systems of the human organism, including the circulatory systems of the human organism, including the circulatory	chment Sheet, students are xplain how internal structures of have adaptations that allow nctions.
student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to: systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions of the systems of the circulatory respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions. The student is expected to: (1) Organisms and environments. The student knows that living systems at all levels systems of the human organism, including the circulatory respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions. The student is expected to: (1) identify the main functions of the systems of the circulatory reproductive, integumentary, nervous, and functions of the systems of the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions of the systems of the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions of the systems of the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions of the systems of the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and functions of the systems of the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems of the human organism, including the terculatory system of the human organism, including the the circulatory system of the human organism, including the the circulatory system of the human organism, including the respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems of the human organism, including the t	
student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to: systems of the human organism, including the circulatory, respiratory, skeletal, muscular, respiratory, skeletal, endocrine systems TX2_USSAN160401 Blood Vessels (TX2_USSAN160401) The Animation enables students to identify the main functions of the circulatory system in humans, including the types and roles of blood vessels. 481 (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 functions. The student is expected to: (B) identify the main functions of the systems of the human organism, including the circulatory reproductive, integumentary, nervous, and functions. The student is expected to: (B) identify the main functions of the systems (I) identify the main functions of the systems of the human organism, including the circulatory reproductive, integumentary, nervous, and endocrine systems (II) identify the main functions of the system of the human organism, including the circulatory reproductive, respiratory, skeletal, muscular (respiratory) (II) identify the main functions of the systems of the circulatory, respiratory, skeletal, muscular (respiratory) (II) identify the main functions of the systems of the circulatory, respiratory, skeletal, muscular (respiratory) (II) identify the main functions of the systems of the circulatory, respiratory, skeletal, muscular (respirat	ion-Answer Sheet assesses inderstanding of the functions of circulatory system.
student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to: systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems Tuctions of the systems of the human organism, including the circulatory 482 (12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems (ii) identify the main functions of the systems of the human organism, including the circulatory Tx2_USSUN160001 The Human Body Atlas (TX2_USSUN160001) 482 (12) Organisms and environments. The student knows that living systems at all levels of organization demonstrate the muscular, digestive, excretory, includion, the respiratory, skeletal, muscular, digestive, excretory, the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory (ii) identify the main functions of the systems of the human organism, including the respiratory	
student knows that living systems at all levels systems of the human organism, including functions of the systems of of organization demonstrate the triculatory, respiratory, skeletal, the human organism, and the circulatory is skeletal, the human organism, and the respiratory System (TY2 LISSAN160502). The Animation identifies the main circulator to excretory and the respiratory of the systems of the system	
	Question-Answer Sheet asks o describe the main functions of respiratory system.
483 (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 (ii) identify the main functions of the systems of the human organism, including the respiratory [system]Average TX2_USSAN160502 The Animation enables students to identify the main functions of the human respiratory system.	
complementary nature of structure and muscular, digestive, excretory, including the respiratory TX2_USSAN160501 Sector (TX2_USSAN160501) International Sector (TX2_USSAN160501) International Sector (TX2_USSAN160501) International Sector (TX2_USSAN160501)	ion-Answer Sheet asks students what role the respiratory system e human body.

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# 485	TEKS (Knowledge and Skills) (12) Organisms and environments. The	Student Expectation (B) identify the main functions of the	Breakout (ii) identify the main	Item Number	Component	Learning Component Description	Assessment Component Description
100	student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory,	(in) too the systems of functions of the systems of the human organism, including the respiratory [system]Average	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The interactive software enables students to identify the organs and structures that belong to the human respiratory system.	
486	(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	 (ii) identify the main functions of the systems of the human organism, including the respiratory [system]Average 	TX2_USSUN160501	The Respiratory System (TX2_USSUN160501)	The interactive software enables students to identify the organs and structures that belong to the human respiratory system.	
487	(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	 (iii) identify the main functions of the systems of the human organism, including the skeletal [system] 	TX2_USSSM160303	The Structure of Bones (TX2_USSSM160303)	In the Activity Object, students identify the main functions of a system of the human body, specifically the skeletal system.	
488	(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	 (iii) identify the main functions of the systems of the human organism, including the skeletal [system] 	TX2_USSSM160302	Joints (TX2_USSSM160302)	In the Activity Object, students identify the main functions of a system of the human body, specifically the skeletal system.	
489	(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	 (iii) identify the main functions of the systems of the human organism, including the skeletal [system] 	TX2_USSAN160302	Joints of The Skeleton (TX2_USSAN160302)	The Animation identifies the main functions of a system of the human body, specifically the skeletal system.	
490	(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	 (iii) identify the main functions of the systems of the human organism, including the skeletal [system] 	TX2_USSAN160301	Technology's Effects on the Skeletal System (TX2_USSAN160301)	The Animation identifies the main functions of a system of the human body, specifically the skeletal system, and the effects of technological advances on the skeletal system.	
491	(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	 (iii) identify the main functions of the systems of the human organism, including the skeletal [system] 	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The interactive software allows students to identify, and learn about, the bones of the skeletal system.	
492	(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	 (iii) identify the main functions of the systems of the human organism, including the skeletal [system] 	TX2_USSAN160306	Musculoskeletal System (TX2_USSAN160306)	The Animation identifies the main functions of the skeletal system.	The Question-Answer Sheet assesses students on their understanding of the main functions of the human skeletal system.
493	(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	(iv) identify the main functions of the systems of the human organism, including the muscular [system]	TX2_USSSM160301	Muscles and Pinocchio's Arm (TX2_USSSM160301)	In the Activity Object, students identify the main functions of a system of the human body, specifically the muscular system.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
# 494	(12) Organisms and environments. The	(B) identify the main functions of the	(iv) identify the main	item Number	Component	Learning Component Description	Assessment Component Description
	student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	functions of the systems of the human organism, including the muscular [system]	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The interactive software allows students to identify, and learn about, the muscles of the human body.	
495	(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	(iv) identify the main functions of the systems of the human organism, including the muscular [system]	TX2_USSAN160306	Musculoskeletal System (TX2_USSAN160306)	The Animation identifies the main functions of the human muscular system.	The Question-Answer Sheet assesses students on their understanding of the main functions of the human muscular system.
496	(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]	TX2_USSSM160602	Digestive System (TX2_USSSM160602)	In this Activity Object, students identify the main functions of a system of the human body, specifically the digestive system.	Enrichment Sheet 2 assesses students on their understanding of the main functions of the human digestive system.
497	(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]	TX2_USSSM160602	Digestive System (TX2_USSSM160602)		Q1 of the Assessment in the Activity Object asks students to identify the functions of the human digestive system.
498	(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]	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The interactive software allows students to identify, and learn about, the organs and structures that belong to the human digestive system.	
499	(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	 (vi) identify the main functions of the systems of the human organism, including the excretory [system] 	TX2_USSAN160701	An Organ of the Excretory System: Kidneys (TX2_USSAN160701)	The Animation identifies the main functions of a system of the human body, specifically the kidneys located within the excretory system.	Q2 of the Question-Answer Sheet requires students to recognize the functions of the excretory system.
500	(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	 (vi) identify the main functions of the systems of the human organism, including the excretory [system] 	TX2_USSAN160703	Urinary Diseases and Disorders (TX2_USSAN160703)	The Animation teaches students about the functions of the human excretory system through the identification of urinary diseases and disorders.	Q1 of the Question-Answer Sheet requires students to describe the primary functions of the excretory system.
501	(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	 (vi) identify the main functions of the systems of the human organism, including the excretory [system] 	TX2_USSAN160702	The Excretory System (TX2_USSAN160702)	The Animation identifies the main functions of a system of the human body. Specifically, the Animation teaches students the functions of the organs of the excretory system, such as the lungs, liver, large intestine, and skin.	Q1 of the Question-Answer Sheet requires students to describe the primary functions of the excretory system.
502	(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	 (vi) identify the main functions of the systems of the human organism, including the excretory [system] 	TX2_USSUN160701	The Urinary System (TX2_USSUN160701)	The Activity Object teaches students to identify the main functions of a system of the human body, specifically the urinary functions of the excretory system.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
# 503	(12) Organisms and environments. The	(B) identify the main functions of the	(vii) identify the main	item Number	Component	Learning Component Description	Assessment Component Description
	student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	functions of the systems of the human organism, including the reproductive [system]	TX2_USSAN160201	Female Reproductive System (TX2_USSAN160201)	The Animation identifies the main functions of a system of the human body, specifically the female reproductive system.	Q5 of the Question-Answer Sheet requires students to describe the main functions of the female reproductive system.
504	(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]	TX2_USSAN160204	Male Reproductive System (TX2_USSAN160204)	The Animation identifies the main functions of a system of the human body, specifically the male reproductive system.	Q1 of the Question-Answer Sheet requires students to describe the main functions of the male reproductive system.
505	(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]	TX2_USSAN160202	Menstruation (TX2_USSAN160202)	The Animation identifies the main functions of a system of the human body, specifically the female reproductive system's function of menstruation.	
506	(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]	TX2_USSAN160901	Integumentary System (TX2_USSAN160901)	The Animation identifies the main functions of a system of the human body, specifically the integumentary system.	Q1 of the Question-Answer Sheet requires students to describe the role the integumentary system plays in the human body.
507	(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	(ix) identify the main functions of the systems of the human organism, including the nervous [system]	TX2_USSSM160803	The Nervous System (TX2_USSSM160803)	The Activity Object identifies the main functions of a system of the human body, specifically the nervous system.	Q2 of the Activity Sheet asks students to name the three main functions of the human nervous system.
508	(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	 (ix) identify the main functions of the systems of the human organism, including the nervous [system] 	TX2_USSAN160802	Reflexes (TX2_USSAN160802)	The Animation identifies the main functions of a system of the human body, specifically the function of reflexes within the nervous system.	
509	(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	 (ix) identify the main functions of the systems of the human organism, including the nervous [system] 	TX2_USSUN160001	The Human Body Atlas (TX2_USSUN160001)	The interactive software allows students to identify, and learn about, the organs and structures that belong to the human nervous system.	
510	(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	 (x) identify the main functions of the systems of the human organism, including the endocrine [system] 	TX2_USSAN160804	Endocrine System (TX2_USSAN160804)	The Animation identifies the main functions of a system of the human body, specifically the endocrine system.	Q1 of the Question-Answer Sheet requires students to describe the role the endocrine system plays in the human body.
511	(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	 (x) identify the main functions of the systems of the human organism, including the endocrine [system] 	TX2_USSAN160801	Pituitary Gland (TX2_USSAN160801)	The Animation identifies the main functions of a system of the human body, specifically the function that the pituitary gland plays within the endocrine system.	

	TEKS (Knowledge and Skills)	Ctudant Europtation	Breakeut	Item Number	Commonant	Looming Component Description	According to Component Description
# 512	TEKS (Knowledge and Skills) (12) Organisms and environments. The	Student Expectation (B) identify the main functions of the	Breakout (x) identify the main	Item Number	Component	Learning Component Description	Assessment Component Description
	student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. The student is expected to:	systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	functions of the systems of the human organism, including the endocrine [system]	TX2_USSAN160803	Thyroid Gland (TX2_USSAN160803)	The Animation identifies the main functions of a system of the human body, specifically the function that the thyroid gland plays within the endocrine system.	
513	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (i) recognize levels of organization in plants, including cells 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	The Animation teaches students to recognize levels of organization in plants, including plant cells.	In the Question-Answer Sheet, students are asked to recognize and describe levels of organization in plants, including plant cells.
514	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (i) recognize levels of organization in plants, including cells 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	In the Enrichment Sheet, students are taught to recognize levels of organization in plants, including plant cells.	In the Enrichment Sheet, students are asked to recognize and describe levels of organization in plants, including plant cells.
515	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (i) recognize levels of organization in plants, including cells 	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students are taught to recognize levels of organization in plants, including plant cells.	Q3 of the Activity Sheet requires students to recognize and describe levels of organization in plants, including plant cells.
516	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (i) recognize levels of organization in plants, including cells 	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students are taught to recognize levels of organization in plants, including plant cells.	A question in the Activity Sheet requires students to recognize levels of organization in plants, including plant cells.
517	of organization demonstrate the complementary nature of structure and function. The student is expected to:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (ii) recognize levels of organization in plants, including tissues 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	The Animation teaches students to recognize levels of organization in plants, including plant tissues.	In the Question-Answer Sheet, students are asked to recognize and describe levels of organization in plants, including plant tissues.
518	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (ii) recognize levels of organization in plants, including tissues 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	In the Enrichment Sheet, students are taught to recognize levels of organization in plants, including plant tissues.	In the Enrichment Sheet, students are asked to recognize and describe levels of organization in plants, including plant tissues.
519	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (iii) recognize levels of organization in plants, including organs 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	The Animation teaches students to recognize levels of organization in plants, including plant organs.	In the Question-Answer Sheet, students are asked to recognize and describe levels of organization in plants, including plant organs.
520	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (iii) recognize levels of organization in plants, including organs 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)		In the Enrichment Sheet, students are asked to recognize and describe levels of organization in plants, including plant organs.
521	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (iii) recognize levels of organization in plants, including organs 	TX2_USSSM160202	Bees, Flowers, and Pollination (TX2_USSSM160202)	In the Activity Object, students are taught to recognize levels of organization in plants, including plant organs.	
522		(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms		TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	In the Enrichment Sheet, students are taught to recognize levels of organization in plants, including organ systems.	In the Enrichment Sheet, students are asked to recognize and describe levels of organization in plants, including plant organ systems.
523	of organization demonstrate the complementary nature of structure and function. The student is expected to:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	including organ systems	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)		Q5 of the Question-Answer Sheet assesses students' understanding of levels of organization in plants, including organ systems such as root and shoot systems.
524	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (v) recognize levels of organization in plants, including organisms 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	The Animation teaches students to recognize levels of organization in plants, including organisms.	In the Question-Answer Sheet, students are asked to recognize and describe levels of organization in plants, including organisms.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
525	of organization demonstrate the complementary nature of structure and function. The student is expected to:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (v) recognize levels of organization in plants, including organisms 	TX2_USSAN160104	Levels of Organization in Plants (TX2_USSAN160104)	In the Enrichment Sheet, students are taught to recognize levels of organization in plants, including the whole plant or organism.	In the Enrichment Sheet, students are asked to recognize and describe levels of organization in plants, including organisms.
526	of organization demonstrate the complementary nature of structure and function. The student is expected to:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	including organisms	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)		In the Activity Sheet, students must recognize and describe a tree as the whole organism, as compared to a cell.
527	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (v) recognize levels of organization in plants, including organisms 	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)		In the Activity Sheet, students must recognize and describe a tree as the whole organism, as compared to a cell.
528	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	 (v) recognize levels of organization in plants, including organisms 	TX2_USSSM180106	Plant Survival: The Xeriscape Garden (TX2_USSSM180106)	In the Activity Object, students are taught to recognize levels of organization in plants, including organisms.	
529	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vi) recognize levels of organization in animals, including cells	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students recognize levels of organization in animals, including animal cells.	
530	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vi) recognize levels of organization in animals, including cells	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In the Activity Object, students recognize levels of organization in animals, including animal cells.	
531	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vi) recognize levels of organization in animals, including cells	TX2_USSSM160602	Digestive System (TX2_USSSM160602)	Enrichment Sheet 1 teaches students to recognize the cellular level of organization in animals.	Q9 of Enrichment Sheet 1 requires students to recognize and describe levels of organization in animals, specifically the level of cells in organisms.
532	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vi) recognize levels of organization in animals, including cells	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)		Q5 of the Question-Answer Sheet requires students to recognize and describe levels of organization in animals, specifically the level of cells in organisms.
533	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vi) recognize levels of organization in animals, including cells	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)		Q4 of Enrichment Sheet 2 requires students to recognize and describe levels of organization in animals, specifically the level of cells in organisms.
534	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vi) recognize levels of organization in animals, including cells	TX2_USSAN160101	Cell Organization (TX2_USSAN160101)	The Animation teaches students to recognize levels of organization in animals, including animal cells.	
535	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vii) recognize levels of organization in animals, including tissues	TX2_USSSM160301	Muscles and Pinocchio's Arm (TX2_USSSM160301)	In the Activity Object, students are taught to recognize levels of organization in animals, including animal tissues.	
536	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vii) recognize levels of organization in animals, including tissues	TX2_USSAN160101	Cell Organization (TX2_USSAN160101)	In the Animation, students are taught to recognize levels of organization in animals, including animal tissues.	Q2 of the Question-Answer Sheet requires students to recognize and describe levels of organization in animals, including the tissue level of organization.
537	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(vii) recognize levels of organization in animals, including tissues	TX2_USSSM160303	The Structure of Bones (TX2_USSSM160303)	In the Activity Object, students are taught to recognize levels of organization in animals, including animal tissues.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
538	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSSM160902	Hear with the Ear (TX2_USSSM160902)	In the Activity Object, students recognize levels of organization in animals, including organs such as the ear.	
539	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	including organs	TX2_USSSM160602	Digestive System (TX2_USSSM160602)		Q7 of Enrichment Sheet 1 asks students to recognize and describe levels of organization in animals, including the level of organs.
540	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)		Q6 of Enrichment Sheet 1 asks students to recognize and describe levels of organization in animals, including the level of organs.
541	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)		Q6 in Enrichment Sheet 2 asks students to recognize and describe levels of organization in animals, including the level of organs.
542	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSAN160701	An Organ of the Excretory System: Kidneys (TX2_USSAN160701)	In the Activity Object, students are taught to recognize levels of organization in animals, including organs such as the kidney.	
543	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSAN160101	Cell Organization (TX2_USSAN160101)	In the Animation, students are taught to recognize levels of organization in animals, including organs.	
544	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSSM160903	Vision and the Eye (TX2_USSSM160903)	In the Activity Object, students are taught to recognize levels of organization in animals, including organs such as the eye.	
545	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSUN160801	Frog Dissection (TX2_USSUN160801)	In the Interactive model, students are taught to recognize levels of organization in animals, including organs.	
546	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(viii) recognize levels of organization in animals, including organs	TX2_USSUN160802	Rat Dissection (TX2_USSUN160802)	In the Interactive model, students are taught to recognize levels of organization in animals, including organs.	
547	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(ix) recognize levels of organization in animals, including organ systems	TX2_USSSM160803	The Nervous System (TX2_USSSM160803)	In the Activity Object, students are taught to recognize levels of organization in animals, including organ systems such as the human nervous system.	
548	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(ix) recognize levels of organization in animals, including organ systems	TX2_USSAN161001	Immune System (TX2_USSAN161001)	The Animation teaches students to recognize levels of organization in animals, including organ systems such as the human immune system.	
549	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(ix) recognize levels of organization in animals, including organ systems	TX2_USSSM160602	Digestive System (TX2_USSSM160602)	In the Activity Object, students are taught to recognize levels of organization in animals, including organ systems such as the digestive system.	In Enrichment Sheet 1, students must recognize and describe levels of organization in animals, including the level of organ systems.
550	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(ix) recognize levels of organization in animals, including organ systems	TX2_USSAN160101	Cell Organization (TX2_USSAN160101)	The Animation teaches students to recognize levels of organization in animals, including organ systems.	The Question-Answer Sheet assesses students' ability to recognize and describe levels of organization in animals, including organ systems.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
551	(12) Organisms and environments. The	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(ix) recognize levels of organization in animals, including organ systems	TX2_USSSM160303	The Structure of Bones (TX2_USSSM160303)	In the Activity Object, students are taught to recognize levels of organization in animals, including organ systems such as the skeletal system.	
552	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(x) recognize levels of organization in animals, including organisms	TX2_USSSM180202	Classification of Animals (TX2_USSSM180202)	In the Activity Object, students are taught to recognize levels of organization in animals, including organisms.	
553	of organization demonstrate the complementary nature of structure and function. The student is expected to:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(x) recognize levels of organization in animals, including organisms	TX2_USSAN160101	Cell Organization (TX2_USSAN160101)	The Animation teaches students to recognize levels of organization in animals, including organisms.	
554	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(x) recognize levels of organization in animals, including organisms	TX2_USSAN180202	The Animal Kingdom (TX2_USSAN180202)	The Animation teaches students to recognize levels of organization in animals, including organisms.	
555	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(x) recognize levels of organization in animals, including organisms	TX2_USSSM160602	Digestive System (TX2_USSSM160602)		Q8 of Enrichment Sheet 1 requires students to recognize and describe levels of organization in animals, including the level of organisms.
556	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(x) recognize levels of organization in animals, including organisms	TX2_USSAN160601	Transformation of Energy in Organisms (TX2_USSAN160601)		Q7 of Enrichment Sheet 1 requires students to recognize and describe levels of organization in animals, including the level of organisms.
557	(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:	(C) recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	(x) recognize levels of organization in animals, including organisms	TX2_USSAN190110	Ecological Pyramids (TX2_USSAN190110)		Q5 of Enrichment Sheet 2 requires students to recognize and describe levels of organization in animals, including the level of organisms.
558	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	 (i) differentiate between structure and function in plant cell organelles, including cell membrane 	TX2_USSSM160109	The Structure and Function of Cell Membrane (TX2_USSSM160109)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including the cell membrane.	
559	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(i) differentiate between structure and function in plant cell organelles, including cell membrane	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including the cell membrane.	The Activity Sheet assesses students' ability to differentiate between structure and function in plant cell organelles, including the cell membrane.
560	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(i) differentiate between structure and function in plant cell organelles, including cell membrane	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including the cell membrane.	
561	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(ii) differentiate between structure and function in plant cell organelles, including cell wall	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including the cell wall.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including the cell wall.
562	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(ii) differentiate between structure and function in plant cell organelles, including cell wall	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including the cell wall.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including the cell wall.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
563	(12) Organisms and environments. The	(D) differentiate between structure and	(iii) differentiate between		Component	Louining component becomption	
	student knows that living systems at all levels of organization demonstrate the complementary nature of structure and	function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	structure and function in plant cell organelles, including nucleus	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including the nucleus.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including the nucleus.
564	of organization demonstrate the complementary nature of structure and	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	 (iii) differentiate between structure and function in plant cell organelles, including nucleus 	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	In the Activity Sheet, students are taught to differentiate between structure and function in plant cell organelles, including the nucleus.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including the nucleus.
565		(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(iv) differentiate between structure and function in plant cell organelles, including cytoplasm	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including cytoplasm.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including cytoplasm.
566		(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(iv) differentiate between structure and function in plant cell organelles, including cytoplasm	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including cytoplasm.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including cytoplasm.
567	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(v) differentiate between structure and function in plant cell organelles, including mitochondrion	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	In the Activity Object, students are taught to differentiate between structure and function in plant cell organelles, including mitochondrion.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including mitochondrion.
568		(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(v) differentiate between structure and function in plant cell organelles, including mitochondrion	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	In the Activity Sheet, students are taught to differentiate between structure and function in plant cell organelles, including mitochondrion.	In the Activity Object, students are asked to differentiate between structure and function in plant cell organelles, including mitochondrion.
569	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	 (vi) differentiate between structure and function in plant cell organelles, including chloroplast 	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object teaches students to differentiate between structure and function in plant cell organelles, including chloroplasts.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including chloroplasts.
570	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	 (vi) differentiate between structure and function in plant cell organelles, including chloroplast 	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object teaches students to differentiate between structure and function in plant cell organelles, including chloroplasts.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including chloroplasts.
571	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(vii) differentiate between structure and function in plant cell organelles, including vacuole	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object teaches students to differentiate between structure and function in plant cell organelles, including vacuoles.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including vacuoles.
572	complementary nature of structure and	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(vii) differentiate between structure and function in plant cell organelles, including vacuole	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object teaches students to differentiate between structure and function in plant cell organelles, including vacuoles.	In the Activity Sheet, students are asked to differentiate between structure and function in plant cell organelles, including vacuoles.
573	of organization demonstrate the complementary nature of structure and	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(viii) differentiate between structure and function in animal cell organelles, including cell membrane	TX2_USSSM160109	The Structure and Function of Cell Membrane (TX2_USSSM160109)	The Activity Object teaches students to differentiate between structure and function in animal cell organelles, including the cell membrane.	In the Activity Sheet, students must differentiate between structure and function in animal cell organelles, including the cell membrane.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
574	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(viii) differentiate between structure and function in animal cell organelles, including cell membrane	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object teaches students to differentiate between structure and function in animal cell organelles, including the cell membrane.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including the cell membrane.
575	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(viii) differentiate between structure and function in animal cell organelles, including cell membrane	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object teaches students to differentiate between structure and function in animal cell organelles, including the cell membrane.	In the Activity Sheet, student are asked to differentiate between structure and function in animal cell organelles, including the cell membrane.
576	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(ix) differentiate between structure and function in animal cell organelles, including nucleus	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object teaches students to differentiate between structure and function in animal cell organelles, including the nucleus.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including the nucleus.
577	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(ix) differentiate between structure and function in animal cell organelles, including nucleus	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object teaches students to differentiate between structure and function in animal cell organelles, including the nucleus.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including the nucleus.
578	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(x) differentiate between structure and function in animal cell organelles, including cytoplasm	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object differentiates between structure and function in animal cell organelles, including cytoplasm.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including cytoplasm.
579	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(x) differentiate between structure and function in animal cell organelles, including cytoplasm	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object differentiates between structure and function in animal cell organelles, including cytoplasm.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including cytoplasm.
580	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	 (xi) differentiate between structure and function in animal cell organelles, including mitochondrion 	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object differentiates between structure and function in animal cell organelles, including mitochondrion.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including mitochondrion.
581	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	 (xi) differentiate between structure and function in animal cell organelles, including mitochondrion 	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object differentiates between structure and function in animal cell organelles, including mitochondrion.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including mitochondrion.
582	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(xii) differentiate between structure and function in animal cell organelles, including vacuole	TX2_USSSM160106	Comparing Plant and Animal Cells (TX2_USSSM160106)	The Activity Object differentiates between structure and function in animal cell organelles, including vacuole.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including vacuole.
583	(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:	(D) differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole.	(xii) differentiate between structure and function in animal cell organelles, including vacuole	TX2_USSSM160103	Agent Organelles (TX2_USSSM160103)	The Activity Object differentiates between structure and function in animal cell organelles, including vacuole.	In the Activity Sheet, students are asked to differentiate between structure and function in animal cell organelles, including vacuole.
584	(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:	(E) compare the functions of a cell to the functions of organisms such as waste removal	 (i) compare the functions of a cell to the functions of organisms 	TX2_USSAN160103	Comparing the Functions of Cells with the Functions of Organisms (TX2_USSAN160103)	The Animation compares the functions of a cell to the functions of organisms.	In the Question-Answer Sheet, students are asked to compare the functions of a cell to the functions of organisms.

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
585	(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:	(E) compare the functions of a cell to the functions of organisms such as waste removal	(i) compare the functions of a cell to the functions of organisms	TX2_USSAN160103	Comparing the Functions of Cells with the Functions of Organisms (TX2_USSAN160103)		In the Enrichment Sheet, students are asked to compare the functions of a cell to the functions of organisms, with regard to oxygen.
586	(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:	(F) recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life.	 (i) recognize that according to cell theory, all organisms are composed of cells 	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In Part 1 of the Activity Object, students recognize that, according to cell theory, all organisms are composed of cells.	In the Activity Sheet, students are asked to recognize and describe that, according to cell theory, all organisms are composed of cells.
587	(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:	(F) recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life.	 (i) recognize that according to cell theory, all organisms are composed of cells 	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	In Part 3 of the Activity Object, students recognize that, according to cell theory, all organisms are composed of cells.	
588	(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:	(F) recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life.	 (ii) recognize that according to cell theory, all cells carry on similar functions 	TX2_USSSM160105	Cell Theory and Cell Types (TX2_USSSM160105)	The Activity Object teaches students to recognize that, according to cell theory, all cells carry on similar functions.	In the Activity Sheet, students are asked to recognize and describe that, according to cell theory, all cells carry on similar functions.
589	(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:	(F) recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life.	 (ii) recognize that according to cell theory, all cells carry on similar functions 	TX2_USSAN160103	Comparing the Functions of Cells with the Functions of Organisms (TX2_USSAN160103)	The Animation teaches students to recognize that, according to cell theory, all cells carry on similar functions.	In the Question-Answer Sheet, students are asked to recognize and describe that, according to cell theory, all cells carry on similar functions.
590	(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:	(F) recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life.	 (ii) recognize that according to cell theory, all cells carry on similar functions 	TX2_USSAN160103	Comparing the Functions of Cells with the Functions of Organisms (TX2_USSAN160103)		In the Enrichment Sheet, students are asked to recognize and describe that, according to cell theory, all cells carry on similar functions.
591	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(A) investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight	 (i) investigate how organisms respond to external stimuli found in the environment 	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	In the Activity Object, students investigate how organisms respond to external stimuli found in the environment, through the example of homeostasis in a paramecium.	In the Investigation Sheet, students use a table to record the data from their investigations of the response of vacuole contraction to salt concentration. Students must then answer questions about their observations during the investigation, including how organisms respond to external stimuli found in the environment.
592	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(A) investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight	 (i) investigate how organisms respond to external stimuli found in the environment 	TX2_USSAN160303	Nastic Movement (TX2_USSAN160303)	During the Animation, students investigate how organisms respond to external stimuli found in the environment, through the example of the nastic movement of plants.	
593	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(A) investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight	 (i) investigate how organisms respond to external stimuli found in the environment 	TX2_USSXP160301	Phototropism in Plants (TX2_USSXP160301)		In the Investigation Sheet, students use a table to record the data from their investigations of the response of coleoptiles to light. Students must then answer questions about their observations during the investigation, including how organisms respond to external stimuli found in the environment.
594	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(A) investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight	 (i) investigate how organisms respond to external stimuli found in the environment 	TX2_USSAN160305	Thigmotropism in Plants (TX2_USSAN160305)	During the Animation, students investigate how organisms respond to external stimuli found in the environment, through the example of thigmotropism in plants.	
595	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(B) describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	 (i) describe responses in organisms that may result from internal stimuli that allow [plants and animals] to maintain balance 	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	The Activity Object describes responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance, such as homeostasis.	

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
# 596	(13) Organisms and environments. The	(B) describe and relate responses in	(i) describe responses in	item Number		Learning Component Description	
	student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	organisms that may result from internal stimuli that allow [plants and animals] to maintain balance	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	The Enrichment Sheet describes responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance.	The Enrichment Sheet assesses students' ability to describe responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance.
597	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(B) describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	 (i) describe responses in organisms that may result from internal stimuli that allow [plants and animals] to maintain balance 	TX2_USSAN161001	Immune System (TX2_USSAN161001)	The Animation describes responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance, such as the immune system.	
598	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(B) describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	(ii) relate responses in organisms that may result from internal stimuli that allow [plants and animals] to maintain balance	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	The Activity Object relates responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance, such as homeostasis.	
599	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(B) describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	(ii) relate responses in organisms that may result from internal stimuli that allow [plants and animals] to maintain balance	TX2_USSSM160107	Homeostasis (TX2_USSSM160107)	The Enrichment Sheet relates responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance.	The Enrichment Sheet asks questions in which students must relate responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance.
600	(13) Organisms and environments. The student knows that a living organism must be able to maintain balance in stable internal conditions in response to external and internal stimuli. The student is expected to:	(B) describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	(ii) relate responses in organisms that may result from internal stimuli that allow [plants and animals] to maintain balance	TX2_USSAN161001	Immune System (TX2_USSAN161001)	The Animation relates responses in organisms that may result from internal stimuli that allow plants and animals to maintain balance, such as the immune system.	
601	(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:	(A) define heredity as the passage of genetic instructions from one generation to the next generation		TX2_USSSM170101	Find the Heir: Genetics Applied (TX2_USSSM170101)	The Glossary of the Activity Object defines heredity as the passage of genetic instructions from one generation to the next generation.	In the Activity Sheet, students are asked to define heredity as the passage of genetic instructions from one generation to the next generation.
602	(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:	(B) compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction		TX2_USSAN160207	Reproduction in Bacteria (TX2_USSAN160207)	The Animation compares the results of uniform or diverse offspring from sexual reproduction or asexual reproduction, in bacteria.	In the Question-Answer Sheet, students are asked to compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction, in bacteria.
603	(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:	(B) compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction		TX2_USSAN160207	Reproduction in Bacteria (TX2_USSAN160207)		In the Enrichment Sheet, students are asked to compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction, in bacteria.
604	(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:	(C) recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus		TX2_USSSM170101	Find the Heir: Genetics Applied (TX2_USSSM170101)	The Activity Object teaches students to recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.	In the Activity Sheet, students answer questions in which they must recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.
605	(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:	(C) recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus		TX2_USSAN200116	History of Biology (TX2_USSAN200116)	The Animation describes that inherited traits of individuals are governed by genes and DNA.	
606	(14) Organisms and environments. The student knows that reproduction is a characteristic of living organisms and that the instructions for traits are governed in the genetic material. The student is expected to:	(C) recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus		TX2_USSSM180101	Natural Selection (TX2_USSSM180101)	The Enrichment Sheet describes that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.	In the Enrichment Sheet, students are asked to recognize the function of genes, and where in the cell they are located.