

**AC Correlation with TEKS 2014 Biology**

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
1	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(A) demonstrate safe practices during laboratory and field investigations	(i) demonstrate safe practices during laboratory investigations	TX2_US200101CD	Laboratory Safety (TX2_US200101CD)	Parts 3 and 4 of the Activity Object demonstrate safe practices during laboratory investigations.	Questions 1 through 9 of the Activity Sheet ask students to demonstrate safe practices during laboratory investigations.
2	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(A) demonstrate safe practices during laboratory and field investigations	(ii) demonstrate safe practices during field investigations	TX2_US2001A01	The Safety of Outdoor Investigations (TX2_US2001A01)	The Animation demonstrates safe practices during outdoor investigations.	Q1-2-3-4 in the "After the Animation" section of the Question-Answer Sheet ask students to demonstrate safe practices during outdoor investigations.
3	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(A) demonstrate safe practices during laboratory and field investigations	(ii) demonstrate safe practices during field investigations	TX2_US2001A01	Laboratory Safety (TX2_US200101CD)	Enrichment Sheet 2 teaches safe practices during laboratory investigations, including during field investigations.	Enrichment Sheet 2 assesses safe practices during field investigations.
4	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(i) demonstrate an understanding of the use of resources	TX2_US200101CD	Laboratory Safety (TX2_US200101CD)	Part 3 of the Activity Object demonstrates an understanding of the use of resources.	Q1 and Q2 in the "Reflection" section of the Activity Sheet ask students to demonstrate safe practices during outdoor investigations.
5	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(i) demonstrate an understanding of the use of resources	TX2_US2001A01	Laboratory Safety (TX2_US200101CD)	Enrichment Sheet 2 teaches an understanding of the use of resources.	Enrichment Sheet 2 assesses an understanding of the use of resources.
6	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(ii) demonstrate an understanding of the conservation of resources	TX2_US200101CD	Laboratory Safety (TX2_US200101CD)	The Activity Object demonstrates an understanding of the conservation of resources.	Q1 and Q2 in the "Learner Journal" section of the Activity Sheet ask students to demonstrate safe practices during outdoor investigations.
7	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(ii) demonstrate an understanding of the conservation of resources	TX2_US200101CD	Laboratory Safety (TX2_US200101CD)	Enrichment Sheet 2 teaches an understanding of the conservation of resources.	Enrichment Sheet 2 assesses an understanding of the conservation of resources.
8	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(iii) demonstrate an understanding of the proper disposal or recycling of materials	TX2_US200101CD	Laboratory Safety (TX2_US200101CD)	After clicking on the unsafe trash can In Part 3 of the Activity Object of the Activity Object, students are presented with a description of the proper disposal and recycling of materials.	Q1 and Q2 in the "Reflection" section of the Activity Sheet ask students to demonstrate safe practices during outdoor investigations.
9	(1) Scientific processes. The student, for at least 40% of instructional time, conducts laboratory and field investigations using safe, environmentally appropriate, and ethical practices. The student is expected to:	(B) demonstrate an understanding of the use and conservation of resources and the proper disposal or recycling of materials	(iii) demonstrate an understanding of the proper disposal or recycling of materials	TX2_US200101CD	Laboratory Safety (TX2_US200101CD)	Enrichment Sheet 2 teaches an understanding of the proper disposal or recycling of materials.	Enrichment Sheet 2 assesses an understanding of the proper disposal or recycling of materials.
10	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(A) know the definition of science and understand that it has limitations, as specified in subsection (b)(2) of this section	(i) know the definition of science, as specified in subsection (b)(2) [above]	TX2_US2801A12	What is Science? (TX2_US2801A12)	In the Animation, students are presented with a definition of science, as well as other aspects of science.	Q1 of the "Before the Animation" section of the Question-Answer Sheet and Q1 of the "After the Animation" section of the Question-Answer Sheet ask students the definition of science.
11	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(A) know the definition of science and understand that it has limitations, as specified in subsection (b)(2) of this section	(ii) understand that [science] has limitations, as specified in subsection (b)(2) [above]	TX2_US2801A12	What is Science? (TX2_US2801A12)	After completing the "Description of Concepts" part of Enrichment Sheet 2, students understand that science has limitations.	Q1 in the Enrichment Sheet asks students to demonstrate knowledge that science has limitations.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
12	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(B) know that hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power which have been tested over a wide variety of conditions are incorporated into theories.	(i) know that hypotheses are tentative statements that must be capable of being supported or not supported by observational evidence	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that hypotheses are tentative statements that must be capable of being supported or not supported by observational evidence.	Q1 and Q3 of the "After the Animation" section of the Question-Answer Sheet ask students to demonstrate knowledge that hypotheses are tentative statements that must be capable of being supported or not supported by observational evidence.
13	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(B) know that hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power which have been tested over a wide variety of conditions are incorporated into theories.	(ii) know that hypotheses are testable statements that must be capable of being supported or not supported by observational evidence	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	After completing the Enrichment Sheet, students know that hypotheses are testable statements that must be capable of being supported or not supported by observational evidence.	Q1 of the "After the Animation" section of the Question-Answer Sheet asks students to demonstrate knowledge that hypotheses are testable statements that must be capable of being supported or not supported by observational evidence.
14	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(B) know that hypotheses are tentative and testable statements that must be capable of being supported or not supported by observational evidence. Hypotheses of durable explanatory power which have been tested over a wide variety of conditions are incorporated into theories.	(iii) [know that] hypotheses of durable explanatory power which have been tested over a wide variety of conditions are incorporated into theories	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that hypotheses of durable explanatory power, which have been tested over a wide variety of conditions, are incorporated into theories.	Q1 of the "After the Animation" section of the Question-Answer Sheet asks students to demonstrate knowledge that hypotheses of durable explanatory power, which have been tested over a wide variety of conditions, are incorporated into theories.
15	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(i) know [that] scientific theories are based on natural and physical phenomena	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that scientific theories are based on natural and physical phenomena (i.e., unknowns).	Q1 and Q3 of the "After the Animation" section of the Question-Answer Sheet ask students to demonstrate knowledge that scientific theories are based on natural and physical phenomena.
16	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(ii) know [that] scientific theories are capable of being tested by multiple independent researchers	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that scientific theories are capable of being tested by multiple independent researchers.	Q1 of the "After the Animation" section of the Question-Answer Sheet asks students to demonstrate knowledge that scientific theories are capable of being tested by multiple independent researchers.
17	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(iii) [know that] unlike hypotheses, scientific theories are well-established explanations	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that, unlike hypotheses, scientific theories are well-established.	Q1 and Q3 of the "After the Animation" section of the Question-Answer Sheet ask students to demonstrate knowledge that, unlike hypotheses, scientific theories are well-established.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
18	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(iv) [know that], unlike hypotheses, scientific theories are highly-reliable explanations	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that, unlike hypotheses, scientific theories are highly-reliable explanations that have been tested through experiments by multiple researchers.	Q1 and Q3 of the "After the Animation" section of the Question-Answer Sheet ask students to demonstrate knowledge that, unlike hypotheses, scientific theories are highly-reliable explanations.
19	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(v) [know that] scientific theories may be subject to change as new areas of science are developed	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that scientific theories may be subject to change as new areas of science are developed.	Q2 of the "After the Animation" section of the Question-Answer Sheet asks students to demonstrate knowledge that scientific theories may be subject to change as new areas of science are developed.
20	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(C) know scientific theories are based on natural and physical phenomena and are capable of being tested by multiple independent researchers. Unlike hypotheses, scientific theories are well-established and highly-reliable explanations, but they may be subject to change as new areas of science and new technologies are developed	(vi) [know that] scientific theories may be subject to change as new technologies are developed	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation explains that scientific theories may be subject to change as new technologies are developed.	Q2 of the "After the Animation" section of the Question-Answer Sheet asks students to demonstrate knowledge that scientific theories may be subject to change as new technologies are developed.
21	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(D) distinguish between scientific hypotheses and scientific theories.		TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	The Animation distinguishes between scientific hypotheses and scientific theories.	Q3 of the "After the Animation" section of the Question-Answer Sheet asks students to distinguish between scientific hypotheses and scientific theories.
22	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(i) plan descriptive investigations, including asking questions	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, a descriptive investigation is fulfilled by completing planned steps and answering necessary questions.	The Investigation Sheet asks students to plan descriptive investigations, and this includes the student asking questions.
23	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(ii) plan descriptive investigations, including formulating testable hypotheses	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In Part 2 of the Activity Object of the Activity Object, students formulate a testable hypothesis/prediction to fulfill a planned step in a descriptive investigation.	
24	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(ii) plan descriptive investigations, including formulating testable hypotheses	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)		In Section 2 of the Activity Object, students formulate a testable hypothesis/prediction to fulfill a planned step in a descriptive investigation. The Activity Object software provides feedback as to whether the hypothesis is correct/appropriate.
25	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(iii) plan descriptive investigations, including selecting equipment	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the "Description of Concepts and Investigations" part of the Investigation Sheet, students plan descriptive investigations, including selecting equipment.	In the "Planning" section of the Investigation Sheet, students are asked to plan descriptive investigations, including selecting equipment.

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26	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(iv) plan descriptive investigations, including selecting technology	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, a descriptive investigation is fulfilled by completing planned steps and answering necessary questions.	In the "Planning" section of the Investigation Sheet, students are asked to plan descriptive investigations, including selecting technology.
27	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(v) implement descriptive investigations, including asking questions	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, a descriptive investigation is fulfilled by completing planned steps and answering necessary questions.	In the Investigation Sheet, a descriptive investigation is fulfilled by completing planned steps and answering necessary questions.
28	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(vi) implement descriptive investigations, including formulating testable hypotheses	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In Part 2 of the Activity Object of the Activity Object, students formulate a testable hypothesis/prediction to fulfill a planned step in a descriptive investigation.	
29	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(vi) implement descriptive investigations, including formulating testable hypotheses	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)		In Section 2 of the Activity Object, students formulate a testable hypothesis/prediction to fulfill a planned step in a descriptive investigation. The Activity Object software provides feedback as to whether the hypothesis is correct/appropriate.
30	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(vii) implement descriptive investigations, including selecting equipment	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, a descriptive investigation is fulfilled by completing planned steps and answering necessary questions.	In the "Planning" section of the Investigation Sheet, students are asked to implement descriptive investigations, including selecting equipment.
31	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(viii) implement descriptive investigations, including selecting technology	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, a descriptive investigation is fulfilled by completing planned steps and answering necessary questions.	In the "Planning" section of the Investigation Sheet, students are asked to plan descriptive investigations, including selecting technology.
32	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(ix) plan comparative investigations, including asking questions	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In Part 2 of the Activity Object of the Activity Object, a comparative investigation is fulfilled by completing planned steps and answering necessary questions.	The Lab Sheet asks students to plan comparative investigations, and this includes the student asking questions.
33	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(ix) plan comparative investigations, including asking questions	TX2_US620105CD	Comparing Plant and Animal Cells (TX2_US620105CD)	In Part 2 of the Activity Object of the Activity Object, students plan a step in an investigation that involves comparing plant and animal cells using a Venn diagram, and answering questions about the cells.	
34	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(ix) plan comparative investigations, including asking questions	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)		In Section 4 of the Activity Object, students plan a comparative investigation that involves asking questions.

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35	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(ix) plan comparative investigations, including asking questions	TX2_US640402CD	Classification of Animals (TX2_US640402CD)	In Part 2 of the Activity Object of the Activity Object, students plan a step in a comparative investigation about classifying animals, which involves answering questions about the animals.	
36	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(x) plan comparative investigations, including formulating testable hypotheses	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 2 of the Activity Object of the Activity Object, students plan a step in a comparative investigation that involves formulating a testable hypothesis/prediction about what will happen in the investigation.	In Section 4 of the Activity Object, students plan a step in a comparative investigation that involves formulating a testable hypothesis/prediction about what will happen in the investigation. Students are then asked if the hypothesis/prediction is proven or disproven based on the observation results.
37	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xi) plan comparative investigations, including selecting equipment.	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In Part 2 of the Activity Object of the Activity Object, student perform an investigation by selecting correct dyes to observe for specific samples.	In the "Planning" section of the Lab Sheet, students are asked to implement descriptive investigations, including selecting equipment.
38	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xii) plan comparative investigations, including selecting technology	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In the Lab Sheet, a comparative investigation is fulfilled by completing planned steps and answering necessary questions.	In the "Planning" section of the Lab Sheet, students are asked to implement descriptive investigations, including selecting technology.
39	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xiii) implement comparative investigations, including asking questions	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In the Lab Sheet, a comparative investigation is fulfilled by completing planned steps and answering necessary questions.	In the "Implement the Investigation" section of the Lab Sheet, students are asked to fill out the chart and answer the questions.
40	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xiv) implement comparative investigations, including formulating testable hypotheses	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In the Investigation Sheet, students are instructed to implement a comparative investigation, including formulating testable hypotheses.	In the Investigation Sheet, students describe their investigation, including a written description of their hypotheses.
41	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xv) implement comparative investigations, including selecting equipment	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In the Lab Sheet, a comparative investigation is fulfilled by completing planned steps and answering necessary questions.	Q2 of the "Implement the Investigation" section of the Lab Sheet asks students to fill out the chart and answer the questions regarding their implementation of comparative investigations, including selecting equipment.
42	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xvi) implement comparative investigations, including selecting technology	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In the Lab Sheet, a comparative investigation is fulfilled by completing planned steps and answering necessary questions.	Q3 of the "Implement the Investigation" section of the Lab Sheet asks students to fill out the chart and answer the questions regarding their implementation of comparative investigations, including selecting equipment.
43	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xvii) plan experimental investigations, including asking questions	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	In the Lab Sheet, an experimental investigation is fulfilled by completing the planned steps, which includes the student asking questions.

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44	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xviii) plan experimental investigations, including formulating testable hypotheses	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	Q1 of the "Plan the Investigation" section of the Lab Sheet asks students to formulate a testable hypothesis for their experimental investigations.
45	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xix) plan experimental investigations, including selecting equipment	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	Q2 of the "Plan the Investigation" section of the Lab Sheet asks students to select equipment for their experimental investigations.
46	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xx) plan experimental investigations, including selecting technology	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In Part 2 of the Activity Object of the Activity Object, the system plans a step in an experimental investigation that involves identifying technology to be selected, such as an incubator.	
47	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xx) plan experimental investigations, including selecting technology	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)		In Section 2 of the Activity Object, students plan a step in an experimental investigation, which involves identifying and selecting usable technology, such as digital scales.
48	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xxi) implement experimental investigations, including asking questions	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	In the Lab Sheet, an experimental investigation is fulfilled by completing the planned steps and answering the necessary questions.
49	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xxii) implement experimental investigations, including formulating testable hypotheses	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	Q3 of the "Implement the Investigation" section of the Lab Sheet asks students to formulate a testable hypothesis for their experimental investigations.
50	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xxiii) implement experimental investigations, including selecting equipment	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	Q4 of the "Implement the Investigation" section of the Lab Sheet asks students about the required equipment for their experimental investigations.
51	(2) Scientific processes. Student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(E) plan and implement descriptive, comparative, and experimental investigations, including asking questions, formulating testable hypotheses, and selecting equipment and technology.	(xxiv) implement experimental investigations, including selecting technology	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, the system plans and implements a step in an experimental investigation and asks questions pertaining to the steps.	Q4 of the "Implement the Investigation" section of the Lab Sheet asks students about selecting technology for their experimental investigations.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
52	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data using [various] tools	TX2_US620111XP	Osmosis (TX2_US620111XP)	In Part 2 of the Activity Object of the Activity Object, qualitative data is collected through standard laboratory glassware, biological specimens, slides, and a microscope.	In Section 2 of the Activity Object, students collect qualitative data through standard laboratory glassware, biological specimens, slides, and a microscope. The students' actions are evaluated, and the Activity Object software provides appropriate feedback along the way to successfully guide the students.
53	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data using [various] tools	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In Part 1 of the Activity Object of the Activity Object, students are required to go to the chemical station within the laboratory. Qualitative data is collected using Petri dishes, a computer, samples of biological specimens, and a lab incubator.	In Section 1 of the Activity Object, students are required to go to the chemical station in the laboratory. The students collect qualitative data using Petri dishes, a computer, samples of biological specimens, and a lab incubator. Then interactions of students are evaluated and related feedback are given to guide them.
54	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data using [various] tools	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In Part 2 of the Activity Object of the Activity Object, the student collects qualitative data using lab incubators, a timing device, standard laboratory glassware, and a lab notebook.	In Section 2 of the Activity Object, the student collects qualitative data using lab incubators, a timing device, standard laboratory glassware, and a lab notebook. The students' actions are evaluated, and the Activity Object software provides appropriate feedback along the way to successfully guide the students.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
55	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data using [various] tools	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, students collect qualitative data such as the presence of wings or antennae on insects.	In the Investigation Sheet, students record the qualitative data that is collected.
56	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data using [various] tools	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In the Lab Sheet, students collect qualitative data with a microscope.	In the Lab Sheet, students record the qualitative data from their investigations.
57	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(i) collect qualitative data using [various] tools	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In the Lab Sheet, students collect qualitative data from their investigations.	In the Lab Sheet, students record the qualitative data from their investigations.



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
58	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ii) organize qualitative data using [various] tools	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, an investigation is fulfilled by organizing qualitative data using various tools.	In the "Analyze" section of the Investigation Sheet, students are asked to design a table that qualitatively describes each of the insects that they observed.
59	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ii) organize qualitative data using [various] tools	TX2_US620101XP	Diffusion (TX2_US620101XP)	In Part 2 of the Activity Object of the Activity Object, qualitative data obtained through observation is organized in an experiment report.	In Section 2 of the Activity Object, based on the students' interactions and the system's feedback, qualitative data obtained through observation is organized in an experiment report.
60	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ii) organize qualitative data using [various] tools	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In Part 1 of the Activity Object of the Activity Object, students are required to go to the chemical station within the laboratory. Qualitative data is organized through categorizing different properties of foreign cells within in a chart.	In Section 1 of the Activity Object, students are required to go to the chemical station in the laboratory. Based on the students' interaction and the system's feedback, qualitative data is organized by categorizing different properties of foreign cells within a chart.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
61	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ii) organize qualitative data using [various] tools	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In Part 2 of the Activity Object of the Activity Object, qualitative data, obtained through observations in the investigation, is organized into a matrix.	In Section 2 of the Activity Object, based on the student interaction and the system's feedback, qualitative data obtained through observations in the investigation is organized into a matrix.
62	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(ii) organize qualitative data using [various] tools	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In the Lab Sheet, students organize qualitative data, which is obtained from their investigations, in a table.	In the Lab Sheet, students are asked to organize the qualitative data from their investigations, in a table.
63	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iii) collect quantitative data using [various] tools	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is collected using a dynamic tool bar and calculator.	In Section 2 of the Activity Object, students use a slider to collect quantitative data, and then they perform some calculations to obtain the surface area-to-volume ratio. In this interaction, the Activity Object software provides appropriate feedback along the way to successfully guide the students.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
64	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iii) collect quantitative data using [various] tools	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is collected using an automatic scale and two water meters.	In the "Learner Journal" section of the Activity Sheet, students are asked to collect quantitative data by performing the necessary interactions.
65	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iii) collect quantitative data using [various] tools	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is collected using a specimen, microscope, interactive table, timer, and graph.	In Section 2 of the Activity Object, students collect quantitative data using a specimen, microscope, interactive table, timer, and graph. In this interaction, the Activity Object software provides appropriate feedback along the way to successfully guide the students.
66	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iii) collect quantitative data using [various] tools	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, an investigation is fulfilled by collecting quantitative data using nets and collecting jars.	In the "Analyze" section of the Investigation Sheet, student are asked to design a table that quantitatively describes each of the insects they observed.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
67	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data using [various] tools	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is organized using a graph and table.	In Section 2 of the Activity Object, students organize quantitative data using a graph and table.
68	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data using [various] tools	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is organized using an interactive table.	In Section 2 of the Activity Object, students organize quantitative data using an interactive table.
69	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data using [various] tools	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is organized in a graph and experiment notebook.	In Section 2 of the Activity Object, students organize quantitative data in a graph and experiment notebook.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
70	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data using [various] tools	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is organized in a table that includes calculated results in a graph.	In Section 2 of the Activity Object, students organize quantitative data in a table, with calculated results and a graph.
71	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data using [various] tools	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In Part 2 of the Activity Object of the Activity Object, quantitative data is organized in a table that includes calculated results in a graph.	In Section 3 of the Activity Object, students organize quantitative data in a table, with calculated results and a graph.
72	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(iv) organize quantitative data using [various] tools	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	In the Investigation Sheet, an investigation is fulfilled by collecting quantitative data using nets and collecting jars.	In the "Analyze" section of the Investigation Sheet, students are asked to design a table that quantitatively describes each of the insects they observed.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
73	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(v) make measurements with accuracy using [various] tools	TX2_US4101A18	Accuracy and Precision (TX2_US4101A18)	The Animation shows students how to make measurements with accuracy by using various scales to weigh a substance in multiple trials.	Q1-2-3 in the "After the Animation" section of the Question-Answer Sheet ask students to show they know how to make measurements with accuracy using various scales to weigh substances, in multiple trials.
74	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(v) make measurements with accuracy using [various] tools	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, students collect measurements with accuracy on a digital scale.	In Section 2 of the Activity Object, students collect measurements with accuracy on a digital scale.
75	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(v) make measurements with accuracy using [various] tools	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In Part 2 of the Activity Object of the Activity Object, students collect measurements with accuracy using a calculator.	In Section 2 of the Activity Object, students collect measurements with accuracy using a calculator.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
76	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vi) make measurements with precision using [various] tools	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In Part 2 of the Activity Object of the Activity Object, students collect measurements with precision using a calculator.	In Section 2 of the Activity Object, students collect measurements with precision using a calculator.
77	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vi) make measurements with precision using [various] tools	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, students collect measurements with precision on a digital scale.	In Section 2 of the Activity Object, students collect measurements with precision on a digital scale.
78	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vi) make measurements with precision using [various] tools	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, students make measurements with precision using an oxygen meter.	In Section 2 of the Activity Object, students make measurements with precision using an oxygen meter.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
79	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vi) make measurements with precision using [various] tools	TX2_US2801A08	Experimental Error (TX2_US2801A08)	The Animation shows how using various tools that are imprecise can result in error.	The Animation shows how using various tools that are imprecise can result in error.
80	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(F) collect and organize qualitative and quantitative data and make measurements with accuracy and precision using tools such as calculators, spreadsheet software, data-collecting probes, computers, standard laboratory glassware, microscopes, various prepared slides, stereoscopes, metric rulers, electronic balances, gel electrophoresis apparatuses, micropipettors, hand lenses, Celsius thermometers, hot plates, lab notebooks or journals, timing devices, cameras, Petri dishes, lab incubators, dissection equipment, meter sticks, and models, diagrams, or samples of biological specimens or structures	(vi) make measurements with precision using [various] tools	TX2_US2801A08	Experimental Error (TX2_US2801A08)	In the Question-Answer Sheet, students are asked to make measurements with precision using various tools.	In the Question-Answer Sheet, students are asked to make measurements with precision, using various tools.
81	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data; and	(i) analyze data	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In Part 2 of the Activity Object of the Activity Object, students analyze data.	In Section 2 of the Activity Object, students analyze data and check to see if their prediction was correct.
82	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data; and	(i) analyze data	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, students analyze data.	In Section 2 of the Activity Object, students analyze data and try to find the source of the seedling's growth.
83	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data; and	(ii) evaluate data	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In the Activity Object, students evaluate data.	In Section 2 of the Activity Object, students evaluate data and check to see if their prediction was correct.
84	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data; and	(ii) evaluate data	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In the Activity Object, students evaluate data.	In Section 2 of the Activity Object, students evaluate data and try to find the source of the seedling's growth.
85	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data; and	(iii) make inferences from data	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In the Activity Object, students make inferences from data.	In the Activity Object, students make inferences from data in order to analyze the trend of the surface area-to-volume ratio.
86	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(G) analyze, evaluate, make inferences, and predict trends from data; and	(iv) predict trends from data	TX2_US620106CD	Surface Area-to-Volume Ratio in Organisms (TX2_US620106CD)	In the Activity Object, students make inferences from data.	In the Activity Object, students make inferences from data to predict the trend of the surface area-to-volume ratio.
87	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(H) communicate valid conclusions supported by the data through methods such as lab reports, labeled drawings, graphic organizers, journals, summaries, oral reports, and technology-based reports	(i) communicate valid conclusions supported by the data through [various] methods	TX2_US620208XP	Factors Influencing Photosynthesis: Carbon Dioxide (TX2_US620208XP)	In Part 2 of the Activity Object of the Activity Object, once the experiment is complete, students have a lab/experiment report labeled with interactions, a graphical representation of what happened in the experiment, and a system explanation summary.	The Investigation Sheet asks students to communicate valid conclusions that are supported by the data from their investigations.



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
88	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(H) communicate valid conclusions supported by the data through methods such as lab reports, labeled drawings, graphic organizers, journals, summaries, oral reports, and technology-based reports	(i) communicate valid conclusions supported by the data through [various] methods	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, students complete an experiment/lab report, which is then explained in a visual diagram and with an oral summary.	
89	(2) Scientific processes. The student uses scientific methods and equipment during laboratory and field investigations. The student is expected to:	(H) communicate valid conclusions supported by the data through methods such as lab reports, labeled drawings, graphic organizers, journals, summaries, oral reports, and technology-based reports	(i) communicate valid conclusions supported by the data through [various] methods	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 3 of the Activity Object of the Activity Object, the student completes an experiment/lab report, which is then explained in a visual diagram and with an oral summary.	
90	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(i) in all fields of science, analyze scientific explanations by using empirical evidence	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object of the Activity Object, students make a series of empirical observations and analyze them to explain scientific explanations.	The activity sheet asks students to analyze scientific explanations by using empirical evidence.
91	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(i) in all fields of science, analyze scientific explanations by using empirical evidence	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Part 2 of the Activity Object of the Activity Object, students are required to make a series of empirical observations and use them to analyze scientific explanations.	
92	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(i) in all fields of science, analyze scientific explanations by using empirical evidence	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In Part 3 of the Activity Object of the Activity Object, students are required to make a series of empirical observations and use them to analyze scientific explanations.	
93	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(i) in all fields of science, analyze scientific explanations by using empirical evidence	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 2 of the Activity Object of the Activity Object, students are required to make a series of empirical observations, and then use them to analyze a scientific explanation.	
94	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ii) in all fields of science, analyze scientific explanations by using logical reasoning	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	Part 1 of the Activity Object uses logical reasoning in order to analyze the scientific explanations for how we identify fossils.	Q6 of the Enrichment Sheet 2 asks students to analyze scientific explanations by using logical reasoning.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
95	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ii) in all fields of science, analyze scientific explanations by using logical reasoning	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 1 of the Activity Object of the Activity Object, students analyze questions about a data set using logical reasoning, then they use the information to analyze scientific explanations for fossil evidence.	
96	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ii) in all fields of science, analyze scientific explanations by using logical reasoning	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 2 of the Activity Object of the Activity Object, students are required to analyze questions about a data set using logical reasoning, then they use the information to analyze scientific explanations for fossil evidence.	
97	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iii) in all fields of science, analyze scientific explanations by using experimental testing	TX2_US620101XP	Diffusion (TX2_US620101XP)	In Part 2 of the Activity Object, students perform experimental testing to analyze the scientific explanations for diffusion.	In the Activity sheet, students analyze scientific explanations by using experimental testing.
98	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iii) in all fields of science, analyze scientific explanations by using experimental testing	TX2_US620111XP	Osmosis (TX2_US620111XP)	In Part 2 of the Activity Object of the Activity Object, students are required to perform experimental testing to analyze the scientific explanations for osmosis.	
99	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iii) in all fields of science, analyze scientific explanations by using experimental testing	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 2 of the Activity Object of the Activity Object, students are required to perform experimental testing to analyze the scientific explanations for the factors that influence photosynthesis, including light intensity and the color of light.	
100	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In Part 3 of the Activity Object, students test a series of observations in order to analyze the scientific explanations for homeostasis.	In the Activity sheet, students analyze feedback mechanisms using the results of observations on paramecia.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
101	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Part 2 of the Activity Object of the Activity Object, students test a series of observations in order to analyze the scientific explanations for photosynthesis.	
102	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 4 of the Activity Object of the Activity Object, students test a series of observations in order to analyze the scientific explanations for how the color of light influences photosynthesis.	
103	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing	TX2_US620101XP	Diffusion (TX2_US620101XP)	In Parts 2 & 3 of the Activity Object, students are required to test a series of observations in order to analyze the scientific explanations for diffusion.	
104	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(iv) in all fields of science, analyze scientific explanations by using observational testing	TX2_US620207XP	Plants' Needs for Photosynthesis (TX2_US620207XP)	In Part 2 of the Activity Object of the Activity Object, students test a series of observations in order to analyze the scientific explanations for photosynthesis.	
105	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(v) in all fields of science, analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Parts 2 & 3 of the Activity Object, students are required to analyze all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to explain the scientific explanations for photosynthesis.	The Activity Sheet asks students to analyze scientific explanations, including examining all sides of the scientific evidence for those scientific explanations.
106	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(v) in all fields of science, analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Parts 1 & 2 of the Activity Object, students are required to analyze all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to explain the scientific explanations for photosynthesis.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
107	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(v) in all fields of science, analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In the Activity Object, students are required to analyze all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to explain the scientific explanations for identifying animal fossils.	
108	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(v) in all fields of science, analyze scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In the Activity Object, students analyze all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to explain the scientific explanations for analyzing animal fossils.	
109	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vi) in all fields of science, evaluate scientific explanations by using empirical evidence	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 2 of the Activity Object, students evaluate scientific explanations as they investigate photosynthesis with Van Helmont, by using empirical evidence from observations.	The Activity Sheet asks students to evaluate scientific explanations by using empirical evidence.
110	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vi) in all fields of science, evaluate scientific explanations by using empirical evidence	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Part 2 of the Activity Object, students evaluate scientific explanations as they investigate photosynthesis with Priestley and Ingenhousz, by using empirical evidence from observations.	
111	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vi) in all fields of science, evaluate scientific explanations by using empirical evidence	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In Part 3 of the Activity Object, students evaluate scientific explanations for homeostasis by using empirical evidence from observations.	
112	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vi) in all fields of science, evaluate scientific explanations by using empirical evidence	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 2 of the Activity Object, students are required to evaluate the scientific explanations for factors that influence photosynthesis, including light intensity and the color of light, by using empirical evidence from observations.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
113	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vii) in all fields of science, evaluate scientific explanations by using logical reasoning	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In Part 1 of the Activity Object, students are required to evaluate the scientific explanations for sorting and identifying animal fossils, by using logical reasoning.	Q7 of the Enrichment Sheet asks students to evaluate scientific explanations by using logical reasoning.
114	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vii) in all fields of science, evaluate scientific explanations by using logical reasoning	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 1 of the Activity Object, students evaluate the scientific explanations for analyzing fossil evidence, by using logical reasoning in reference to questions about different data sets.	
115	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(vii) in all fields of science, evaluate scientific explanations by using logical reasoning	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 2 of the Activity Object, students evaluate the scientific explanation for analyzing fossil evidence, by using logical reasoning in reference to questions about different data sets.	
116	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(viii) in all fields of science, evaluate scientific explanations by using experimental testing	TX2_US620101XP	Diffusion (TX2_US620101XP)	In Part 2 of the Activity Object, students complete an experimental test in order to evaluate the scientific explanations for diffusion.	In the Activity sheet, students evaluate scientific explanations by using experimental testing.
117	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(viii) in all fields of science, evaluate scientific explanations by using experimental testing	TX2_US620111XP	Osmosis (TX2_US620111XP)	In Part 2 of the Activity Object, students are required to complete an experimental test in order to evaluate the scientific explanations for osmosis.	
118	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(viii) in all fields of science, evaluate scientific explanations by using experimental testing	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 2 of the Activity Object, students are required to complete an experimental test in order to evaluate the scientific explanations for factors that influence photosynthesis, including light intensity and the color of light.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
119	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ix) in all fields of science, evaluate scientific explanations by using observational testing	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In Part 3 of the Activity Object, students are required to use observational testing in order to evaluate the scientific explanations of homeostasis.	In the Activity sheet, students evaluate osmosis as an explanation for the movement of water in cells.
120	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ix) in all fields of science, evaluate scientific explanations by using observational testing	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Part 2 of the Activity Object, students are required to use observational testing in order to evaluate the scientific explanations of photosynthesis.	
121	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(ix) in all fields of science, evaluate scientific explanations by using observational testing	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In Part 4 of the Activity Object, students are required to use observational testing in order to evaluate the scientific explanations of photosynthesis.	
122	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Parts 2 & 3, students are required to use all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to evaluate the scientific explanations for photosynthesis.	The Activity Sheet asks students to evaluate scientific explanations, including examining all sides of the scientific evidence for those scientific explanations.
123	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Parts 1 & 2, students are required to use all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to evaluate the scientific explanations for photosynthesis.	
124	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In the Activity Object, students are required to evaluate all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to explain the scientific explanations for identifying animal fossils.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
125	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(x) in all fields of science, evaluate scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In the Activity Object, students are required to evaluate all sides of scientific evidence, including empirical evidence, logical reasoning, and experimental and observational testing, to explain the scientific explanations for analyzing animal fossils.	
126	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xi) in all fields of science, critique scientific explanations by using empirical evidence	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 3 of the Activity Object, the scientific explanations for photosynthesis are critiqued using empirical evidence.	The Activity Sheet asks students to critique scientific explanations by using empirical evidence.
127	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xi) in all fields of science, critique scientific explanations by using empirical evidence	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Q3 of the "Learner Journal" section in the Activity Sheet, students are required to critique/describe the empirical evidence found in the investigation.	
128	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xi) in all fields of science, critique scientific explanations by using empirical evidence	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Q1-Q2 of the "Reflections" section in the Activity Sheet, students are required to write a critique/description based on empirical evidence.	
129	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xi) in all fields of science, critique scientific explanations by using empirical evidence	TX2_US620209XP	Factors Influencing Photosynthesis: Intensity and the Color of Light (TX2_US620209XP)	In the Activity Sheet, students are required to critique their empirical evidence.	
130	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xii) in all fields of science, critique scientific explanations by using logical reasoning	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In Part 1 of the Activity Object, students observe the system and critique the scientific explanations for fossils using logical reasoning.	Q8 of the Enrichment Sheet 2 critiques scientific explanations by using logical reasoning.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
131	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xii) in all fields of science, critique scientific explanations by using logical reasoning	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 1 of the Activity Object, students are required to critique questions about a data set using logical reasoning. students must then use the information to explain scientific explanations regarding the analysis of fossil evidence.	
132	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xii) in all fields of science, critique scientific explanations by using logical reasoning	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 2 of the Activity Object, students are required to critique questions about a data set using logical reasoning. students must then use the information to explain scientific explanations regarding the analysis of fossil evidence.	
133	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiii) in all fields of science, critique scientific explanations by using experimental testing	TX2_US2801A05	Scientific Hypotheses and Theories (TX2_US2801A05)	In the Animation, students observe how to critique scientific explanations using experimental testing.	
134	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiii) in all fields of science, critique scientific explanations by using experimental testing	TX2_US620112CD	Homeostasis (TX2_US620112CD)		Q1 of the "Reflections" section of the Activity Sheet asks students to write a critique/description for the results of their experimental testing.
135	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiv) in all fields of science, critique scientific explanations by using observational testing	TX2_US620111XP	Osmosis (TX2_US620111XP)	In Part 5 of the Activity Object, students observe the system and critique the scientific explanations for osmosis, using observational testing.	In the Activity sheet students critique osmosis as an explanation for the movement of water in cells by using observational testing.
136	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiv) in all fields of science, critique scientific explanations by using observational testing	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In the Activity Sheet, students are required to write a critique/description of scientific explanations based on their findings obtained through observational testing.	



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
137	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xiv) in all fields of science, critique scientific explanations by using observational testing	TX2_US620101XP	Diffusion (TX2_US620101XP)	Questions in the Activity Sheet require students to critique their observational tests regarding the scientific explanations of diffusion.	
138	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xv) in all fields of science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In Part 4 of the Activity Object, students observe the system and critique the scientific explanations for photosynthesis, including examining all sides of scientific evidence.	The Activity Sheet asks students to critique scientific explanations, including examining all sides of the scientific evidence for those scientific explanations.
139	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xv) in all fields of science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In Part 3 of the Activity Object, students observe the system and critique the scientific explanations for photosynthesis, including examining all sides of scientific evidence.	
140	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xv) in all fields of science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In Part 2 of the Activity Object, students observe the system and critique the scientific explanations for sorting and identifying fossils, including examining all sides of scientific evidence.	
141	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(A) in all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student	(xv) in all fields of science, critique scientific explanations, including examining all sides of scientific evidence of those scientific explanations	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Part 3 of the Activity Object, students observe the system and critique the scientific explanations for analyzing fossil evidence, including examining all sides of scientific evidence.	
142	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(i) communicate scientific information extracted from various sources	TX2_US4101A19	Applying and Communicating Scientific Information (TX2_US4101A19)	In the Animation, students learn how to communicate scientific information extracted from various sources.	In the Question-Answer Sheet, students are asked to communicate scientific information extracted from various sources.
143	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(i) communicate scientific information extracted from various sources	TX2_US4101A19	Applying and Communicating Scientific Information (TX2_US4101A19)	In the Enrichment Sheet, students communicate scientific information extracted from various sources.	
144	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(i) communicate scientific information extracted from various sources	TX2_US2801A12	What is Science? (TX2_US2801A12)	The Animation explains that scientific information is communicated through various resources, such as published journal articles.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
145	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(ii) apply scientific information extracted from various sources	TX2_US4101A19	Applying and Communicating Scientific Information (TX2_US4101A19)	In the Animation, students learn how to apply scientific information extracted from various sources.	In the Question-Answer Sheet, students are asked to apply scientific information extracted from various sources.
146	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(ii) apply scientific information extracted from various sources	TX2_US2801A12	What is Science? (TX2_US2801A12)	The Animation explains that scientific information is communicated through various resources, such as published journal articles.	
147	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(B) communicate and apply scientific information extracted from various sources such as current events, news reports, published journal articles, and marketing materials	(ii) apply scientific information extracted from various sources	TX2_US4101A19	Applying and Communicating Scientific Information (TX2_US4101A19)	In the Enrichment Sheet, students apply scientific information extracted from various sources.	
148	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(C) draw inferences based on data related to promotional materials for products and services	(i) draw inferences based on data related to promotional materials for products	TX2_US4803A02	Evaluating Products and Services (TX2_US4803A02)	In the Animation, students learn how to draw inferences based on data related to promotional materials for products.	In the Question-Answer Sheet, students are asked to draw inferences based on data related to promotional materials for products.
149	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(C) draw inferences based on data related to promotional materials for products and services	(ii) draw inferences based on data related to promotional materials for services	TX2_US4803A02	Evaluating Products and Services (TX2_US4803A02)	In the Animation, students learn how to draw inferences based on data related to promotional materials for products.	In the Question-Answer Sheet, students are asked to draw inferences based on data related to promotional materials for products.
150	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of scientific research on society and the environment	(i) evaluate the impact of scientific research on society	TX2_US2801A09	The Impact of Scientific Advances on Science and Society (TX2_US2801A09)	In the Animation, students explore the positive and negative effects of science and technology on society.	In Q2-Q3-Q4 of the "After the Animation" section of the Question-Answer Sheet, students are asked to evaluate the impact of scientific research on society.
151	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of scientific research on society and the environment	(i) evaluate the impact of scientific research on society	TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation evaluates the impact of scientific research on society.	
152	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of scientific research on society and the environment	(i) evaluate the impact of scientific research on society	TX2_US6803A01	Defects in Sensory Organs and Technology (TX2_US6803A01)	The Animation evaluates the impact of scientific research on society.	
153	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(D) evaluate the impact of scientific research on society and the environment	(ii) evaluate the impact of scientific research on the environment	TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation evaluates the impact of scientific research on the environment.	The Question-Answer Sheet asks about the impact of gene cloning on the environment.
154	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(E) evaluate models according to their limitations in representing biological objects or events		TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation evaluates models according to their limitations in representing biological objects or events.	
155	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(E) evaluate models according to their limitations in representing biological objects or events		TX2_US6404A02	History of Taxonomy (TX2_US6404A02)	The Animation evaluates different taxonomic models from ancient Greece to modern times.	
156	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(E) evaluate models according to their limitations in representing biological objects or events		TX2_US6301A03	Non-Mendelian Inheritance (TX2_US6301A03)	The Animation evaluates the Mendelian model of inheritance in light of non-Mendelian inheritance patterns.	The Question-Answer Sheet asks students to evaluate the Mendelian inheritance model according to its limitations.
157	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(i) research the history of biology	TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation researches the history of biology.	In Q1-2-3-4-5 of the "After the Animation" section of the Question-Answer Sheet, students are asked to research the history of biology.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
158	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(ii) research contributions of scientists	TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation researches the contributions of scientists.	In Q1-2-3-4-5 of the "After the Animation" section of the Question-Answer Sheet, students are asked to describe the contributions of scientists.
159	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(ii) research contributions of scientists	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	The Activity Object provides research information on the contributions of scientists.	In Q1-2-3-4-5 of the "After the Animation" section of the Question-Answer Sheet, students are asked to fill out the table by writing the contributions of Hooke, Leeuwenhoek, Schleiden, Schwann, and Virchow.
160	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(ii) research contributions of scientists	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	The Activity Object provides research information on the contributions of scientists.	In Q1 and Q2 of the "Reflection" section of the Activity Sheet, students are asked to demonstrate research into the contributions of Van Helmont.
161	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(ii) research contributions of scientists	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	The Activity Object provides research information on the contributions of scientists.	In Q1 and Q2 of the "Reflection" section of the Activity Sheet, students are asked to evaluate models according to their limitations in representing biological objects or events.
162	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(iii) describe the history of biology	TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation describes the history of biology.	In Q1-2-3-4-5 of the "After the Animation" section of the Question-Answer Sheet, students are asked to describe the history of biology.
163	(3) Scientific processes. The student uses critical thinking, scientific reasoning, and problem solving to make informed decisions within and outside the classroom. The student is expected to:	(F) research and describe the history of biology and contributions of scientists	(iv) describe the contributions of scientists	TX2_US6401A01	History of Biology (TX2_US6401A01)	The Animation describes the contributions of scientists.	In Q1-2-3-4-5 of the "After the Animation" section of the Question-Answer Sheet, students are asked to describe the contributions of scientists.
164	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(A) compare and contrast prokaryotic and eukaryotic cells	(i) compare prokaryotic and eukaryotic cells	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	The Activity Object allows students to compare prokaryotic and eukaryotic cells.	Q2 of the "Learner Journal" section in the Activity Sheet asks students to label the cell and decide if it is prokaryotic or eukaryotic.
165	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(A) compare and contrast prokaryotic and eukaryotic cells	(ii) contrast prokaryotic and eukaryotic cells	TX2_US620104CD	Cell Theory and Cell Types (TX2_US620104CD)	In Part 3 of the Activity Object, the Activity Object gives an explanation of the differences between prokaryotic and eukaryotic cells.	Question 1 of the Reflections section of the Activity Sheet asks students to describe the differences between prokaryotic and eukaryotic cells.
166	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(i) investigate cellular processes, including homeostasis	TX2_US620112CD	Homeostasis (TX2_US620112CD)	The Activity Object investigates cellular processes, including homeostasis.	The Activity Object investigates cellular processes, including homeostasis.
167	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(ii) investigate cellular processes, including energy conversions	TX2_US620207XP	Plants' Needs for Photosynthesis (TX2_US620207XP)	The Activity Object investigates cellular processes, including energy conversions.	Q2 of the "Reflection" section in the Activity Sheet asks students to investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules.
168	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(iii) investigate cellular processes, including transport of molecules	TX2_US620101XP	Diffusion (TX2_US620101XP)	The Activity Object investigates cellular processes, including the transport of molecules.	Q1-2-3-4 of the "Learner Journal" section of the Activity Sheet asks students to investigate cellular processes, including transport of molecules via diffusion.
169	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(iii) investigate cellular processes, including transport of molecules	TX2_US620111XP	Osmosis (TX2_US620111XP)	The Activity Object investigates cellular processes, including the transport of molecules	All questions in the Activity Sheet ask students to investigate and/or analyze cellular processes, including transport of molecules via osmosis.

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170	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(iii) investigate cellular processes, including transport of molecules	TX2_US620110CD	Structure and Function of Cell Membrane (TX2_US620110CD)	The Activity Object investigates cellular processes, including the transport of molecules.	Q2 of the "Learner Journal" section of the Activity Sheet asks students to investigate cellular processes, including the transport of molecules.
171	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(iv) investigate cellular processes, including synthesis of new molecules	TX2_US630301CD	DNA Structure (TX2_US630301CD)	The Activity Object investigates cellular processes, including synthesis of new molecules.	The "Investigation Activity" section of the Investigation Sheet asks students to investigate cellular processes, including synthesis of new molecules.
172	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(iv) investigate cellular processes, including synthesis of new molecules	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object investigates cellular processes, including synthesis of new molecules.	The "Investigation Activity" section of the Investigation Sheet asks students to investigate cellular processes, including synthesis of new molecules.
173	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(v) explain cellular processes, including homeostasis	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In the Activity Object, cellular processes, including homeostasis, are explained.	The Activity Object explains cellular processes, including homeostasis.
174	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vi) explain cellular processes, including energy conversions	TX2_US6202A01	Glycolysis (TX2_US6202A01)	The Animation explains cellular processes, including energy conversions.	In the Question-Answer Sheet, students answer questions about respiration, including energy conversions.
175	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vi) explain cellular processes, including energy conversions	TX2_US6202A02	Krebs Cycle (TX2_US6202A02)	The Animation explains cellular processes, including energy conversions.	In the Question-Answer Sheet, students answer questions about respiration, including energy conversions.
176	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vi) explain cellular processes, including energy conversions	TX2_US6202A03	Electron Transport Chain (TX2_US6202A03)	The Animation explains cellular processes, including energy conversions.	In the Question-Answer Sheet, students answer questions about respiration, including energy conversions.
177	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vi) explain cellular processes, including energy conversions	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)	The Animation explains cellular processes, including energy conversions.	In the Question-Answer Sheet, students answer questions about energy conversions during photosynthesis and respiration.
178	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vi) explain cellular processes, including energy conversions	TX2_US6202A09	Comparing Cellular Respiration and Fermentation (TX2_US6202A09)	The Animation explains cellular processes, including energy conversions.	In the Question-Answer Sheet, students compare the energy production of aerobic and anaerobic respiration.
179	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vi) explain cellular processes, including energy conversions	TX2_US6202A08	Comparing Lactic Acid Fermentation and Ethyl Alcohol Fermentation (TX2_US6202A08)	The Animation explains cellular processes, including energy conversions.	In the Question-Answer Sheet, students answer questions about lactic acid and ethyl alcohol fermentation.
180	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vii) explain cellular processes, including transport of molecules	TX2_US620101XP	Diffusion (TX2_US620101XP)	In the Activity Object, cellular processes, such as the transport of molecules, are explained.	Q1-2-3-4 of the "Learner Journal" section of the Activity Sheet asks students to explain cellular processes, including transport of molecules via diffusion.

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181	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vii) explain cellular processes, including transport of molecules	TX2_US620111XP	Osmosis (TX2_US620111XP)	In the Activity Object, cellular processes, such as the transport of molecules, are explained.	All questions in the Activity Sheet ask students to explain cellular processes, including transport of molecules via osmosis.
182	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vii) explain cellular processes, including transport of molecules	TX2_US620110CD	Structure and Function of Cell Membrane (TX2_US620110CD)	In the Activity Object, cellular processes, such as the transport of molecules, are explained.	Q2 of the "Learner Journal" section of the Activity Sheet asks students to explain cellular processes, including the transport of molecules.
183	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(vii) explain cellular processes, including transport of molecules	TX2_US6201A17	The Surface Area-to-Volume Ratio of Cells (TX2_US6201A17)	In the Animation, the surface area-to-volume ratio and its relation to cellular processes is explained.	
184	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(viii) explain cellular processes, including synthesis of new molecules	TX2_US630301CD	DNA Structure (TX2_US630301CD)	The Activity Object explains cellular processes, including the synthesis of new molecules.	The "Investigation Activity" section of the Investigation Sheet asks students to explain cellular processes, including the synthesis of new molecules.
185	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(viii) explain cellular processes, including synthesis of new molecules	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object explains cellular processes, including the synthesis of new molecules.	The "Investigation Activity" section of the Investigation Sheet asks students to explain cellular processes, including the synthesis of new molecules.
186	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(B) investigate and explain cellular processes, including homeostasis, energy conversions, transport of molecules, and synthesis of new molecules	(viii) explain cellular processes, including synthesis of new molecules	TX2_US6202A06	Conversion of Glucose into Different Organic Substances (TX2_US6202A06)	The Animation explains cellular processes, including the synthesis of new molecules.	
187	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(C) compare the structures of viruses to cells, describe viral reproduction, and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza	(i) compare the structures of viruses to cells	TX2_US6501A07	Viruses and Virus-like Particles (TX2_US6501A07)	The Animation compares viruses to cells.	The Question-Answer Sheet requires students to compare viruses to cells.
188	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(C) compare the structures of viruses to cells, describe viral reproduction, and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza	(i) compare the structures of viruses to cells	TX2_US6501A08	Virus classification (TX2_US6501A08)		The Question-Answer Sheet requires students to describe the differences between a virus and a cell.
189	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(C) compare the structures of viruses to cells, describe viral reproduction, and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza	(i) compare the structures of viruses to cells	TX2_US6501A09	DNA Viruses (TX2_US6501A09)		The Question-Answer Sheet requires students to describe the differences between a virus and a cell.
190	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(C) compare the structures of viruses to cells, describe viral reproduction, and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza	(ii) describe viral reproduction	TX2_US6501A07	Viruses and Virus-like Particles (TX2_US6501A07)	The Animation describes and compares the lytic and lysogenic cycles of viruses.	The Question-Answer Sheet requires students to describe the lytic and lysogenic cycles of viruses.
191	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(C) compare the structures of viruses to cells, describe viral reproduction, and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza	(ii) describe viral reproduction	TX2_US6501A08	Virus classification (TX2_US6501A08)	The Animation describes the reproduction of DNA viruses, class IV RNA viruses, and retroviruses.	The Question-Answer Sheet requires students to describe the reproduction of DNA viruses, class IV RNA viruses, and retroviruses.
192	(4) Science concepts. The student knows that cells are the basic structures of all living things with specialized parts that perform specific functions and that viruses are different from cells. The student is expected to:	(C) compare the structures of viruses to cells, describe viral reproduction, and describe the role of viruses in causing diseases such as human immunodeficiency virus (HIV) and influenza	(iii) describe the role of viruses in causing diseases	TX2_US6501A09	DNA Viruses (TX2_US6501A09)	The Animation describes the role of class I and class II DNA viruses in causing diseases of bacteria, animals and humans.	The Question-Answer Sheet requires students to name and describe diseases caused by DNA viruses.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
193	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(i) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication	TX2_US620304CD	The Cell Cycle and Mitosis (TX2_US620304CD)	In Part 2 of the Activity Object, students are required to choose in which part of the cell cycle DNA replication takes place.	The Activity Sheet requires students to answer several questions pertaining to DNA, and its replication during the cell cycle.
194	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(i) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication	TX2_US620304CD	The Cell Cycle and Mitosis (TX2_US620304CD)	In Part 3 of the Activity Object, interphase and how DNA is replicated are described.	
195	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(ii) describe the stages of the cell cycle, including mitosis	TX2_US620304CD	The Cell Cycle and Mitosis (TX2_US620304CD)	In Part 2 of the Activity Object, students are required to read descriptions of cell cycles and choose which ones are parts of mitosis.	The Activity Sheet requires the student to answer several questions pertaining to mitosis and the cell cycle.
196	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(ii) describe the stages of the cell cycle, including mitosis	TX2_US620304CD	The Cell Cycle and Mitosis (TX2_US620304CD)	In Part 3 of the Activity Object, the cell cycle is described, including how mitosis takes place.	
197	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(iii) describe the importance of the cell cycle to the growth of organisms	TX2_US620304CD	The Cell Cycle and Mitosis (TX2_US620304CD)	Part 1 of the Activity Object describes the importance of the cell cycle, and how it contributes to the growth of organisms.	Q2 in the "Reflections" section of the Activity Sheet asks students to describe why the cell cycle is important.
198	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(iii) describe the importance of the cell cycle to the growth of organisms	TX2_US620309CD	Identifying Cancerous Cells (TX2_US620309CD)	In the Activity Object, students recognize the importance of the cell cycle to the growth of organisms by viewing abnormal cell growth in cancer.	
199	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(A) describe the stages of the cell cycle, including deoxyribonucleic acid (DNA) replication and mitosis, and the importance of the cell cycle to the growth of organisms	(iii) describe the importance of the cell cycle to the growth of organisms	TX2_US620310CD	Cancer Treatment (TX2_US620310CD)	In the Activity Object, students recognize the importance of the cell cycle to the growth of organisms by viewing abnormal cell growth in cancer.	
200	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(B) examine specialized cells, including roots, stems, and leaves of plants; and animal cells such as blood, muscle, and epithelium	(i) examine specialized cells, including roots of plants	TX2_US6601A02	Comparing Monocots and Dicots (TX2_US6601A02)	In the Lab Sheet, specialized cells found in plant roots are taught.	The Lab Sheet asks students about the specialized cells found in plant roots.
201	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(B) examine specialized cells, including roots, stems, and leaves of plants; and animal cells such as blood, muscle, and epithelium	(ii) examine specialized cells, including stems of plants	TX2_US6601A02	Comparing Monocots and Dicots (TX2_US6601A02)	In the Lab Sheet, specialized cells found in plant stems are taught.	The Lab Sheet asks students about the specialized cells found in plant stems.
202	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(B) examine specialized cells, including roots, stems, and leaves of plants; and animal cells such as blood, muscle, and epithelium	(iii) examine specialized cells, including leaves of plants	TX2_US6601A02	Comparing Monocots and Dicots (TX2_US6601A02)	In the Lab Sheet, specialized cells found in plant leaves are taught.	The Lab Sheet asks students about the specialized cells found in plant leaves.
203	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(B) examine specialized cells, including roots, stems, and leaves of plants; and animal cells such as blood, muscle, and epithelium	(iv) examine specialized cells, including animal cells	TX2_US6801A02	Cell Organization (TX2_US6801A02)	The Animation examines specialized cells, including animal cells.	
204	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(B) examine specialized cells, including roots, stems, and leaves of plants; and animal cells such as blood, muscle, and epithelium	(iv) examine specialized cells, including animal cells	TX2_US6801A02	Cell Organization (TX2_US6801A02)	In the Lab Sheet, specialized cells found in animals are taught.	In the Lab Sheet, students are asked about the specialized cells found in animals.
205	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(C) describe the roles of DNA, ribonucleic acid (RNA), and environmental factors in cell differentiation	(i) describe the role of DNA in cell differentiation	TX2_US6302A08	The Roles of DNA, RNA and Environmental Factors in Cell Differentiation (TX2_US6302A08)	The Animation describes the role of DNA in cell differentiation.	Q3 of the "After the Animation" section of the Question-Answer Sheet asks students to describe the role of DNA in cell differentiation.
206	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(C) describe the roles of DNA, ribonucleic acid (RNA), and environmental factors in cell differentiation	(ii) describe the role of ribonucleic acid (RNA) in cell differentiation	TX2_US6302A08	The Roles of DNA, RNA and Environmental Factors in Cell Differentiation (TX2_US6302A08)	The Animation describes the role of ribonucleic acid (RNA) in cell differentiation.	Q3 of the "After the Animation" section of the Question-Answer Sheet asks students to describe the role of ribonucleic acid (RNA) in cell differentiation.
207	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(C) describe the roles of DNA, ribonucleic acid (RNA), and environmental factors in cell differentiation	(iii) describe the role of environmental factors in cell differentiation	TX2_US6302A08	The Roles of DNA, RNA and Environmental Factors in Cell Differentiation (TX2_US6302A08)	The Animation describes the role of environmental factors in cell differentiation.	In the Question-Answer Sheet, students are asked to describe the role of environmental factors in cell differentiation.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
208	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(D) recognize that disruptions of the cell cycle lead to diseases such as cancer	(i) recognize that disruptions of the cell cycle lead to diseases	TX2_US620309CD	Identifying Cancerous Cells (TX2_US620309CD)	In Part 1 of the Activity Object, the Activity Object explains that disruptions in the cell cycle, such as abnormal cell growth, can lead to cancer.	Q1 of the Activity Sheet asks students to describe cancer as resulting from abnormalities or disruptions to the cell cycle.
209	(5) Science concepts. The student knows how an organism grows and the importance of cell differentiation. The student is expected to:	(D) recognize that disruptions of the cell cycle lead to diseases such as cancer	(i) recognize that disruptions of the cell cycle lead to diseases	TX2_US620310CD	Cancer Treatment (TX2_US620310CD)	By following the steps In Part 1 of the Activity Object, students recognize that disruptions in the cell can lead to diseases such as cancer.	
210	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(A) identify components of DNA, and describe how information for specifying the traits of an organism is carried in the DNA	(i) identify components of DNA	TX2_US630301CD	DNA Structure (TX2_US630301CD)	The Activity Object identifies components of DNA.	Section 1 of the Activity Object proceeding to identify components of DNA and guide student with a meaningful feedback if they false to achieve the goal.
211	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(A) identify components of DNA, and describe how information for specifying the traits of an organism is carried in the DNA	(ii) describe how information for specifying the traits of an organism is carried in the DNA	TX2_US630302CD	Find the Heir: Genetics Applied (TX2_US630302CD)	The Activity Object describes how the information that specifies the traits of an organism is carried in DNA.	The Activity Sheet asks students to describe how the information that specifies the traits of an organism is carried in the DNA.
212	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(B) recognize that components that make up the genetic code are common to all organisms		TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	The Animation explains DNA and amino acids, and students recognize that components that make up the genetic code are common to all organisms.	Q1-Q2 of the "After the Animation" section of the Question-Answer Sheet asks students to recognize that the components that make up the genetic code are common to all organisms.
213	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(B) recognize that components that make up the genetic code are common to all organisms		TX2_US630301CD	DNA Structure (TX2_US630301CD)	In Part 3 of the Activity Object, components that make up the genetic code are recognized and explained as being common to all organisms and accounting for diversity.	
214	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(B) recognize that components that make up the genetic code are common to all organisms		TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	In Part 5 of the Activity Object, students recognize that components of the genetic code are common to all organisms.	
215	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(C) explain the purpose and process of transcription and translation using models of DNA and RNA	(i) explain the purpose of transcription using models of DNA and RNA	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object explains the purpose of transcription, using models of DNA and RNA.	The Investigation Sheet asks students to explain the purpose of transcription using models of DNA and RNA.
216	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(C) explain the purpose and process of transcription and translation using models of DNA and RNA	(ii) explain the process of transcription using models of DNA and RNA	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object explains the process of transcription using models of DNA and RNA.	The Investigation Sheet asks students to explain the process of transcription using models of DNA and RNA.
217	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(C) explain the purpose and process of transcription and translation using models of DNA and RNA	(iii) explain the purpose of translation using models of RNA	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object explains the purpose of translation, using models of DNA and RNA.	The Investigation Sheet asks students to explain the purpose of translation using models of RNA.
218	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(C) explain the purpose and process of transcription and translation using models of DNA and RNA	(iv) explain the process of translation using models of RNA	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object explains the process of translation, using models of DNA and RNA.	The Investigation Sheet asks students to explain the process of translation using models of RNA.
219	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(D) recognize that gene expression is a regulated process		TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	The Activity Object explains the process of translation, using models of DNA and RNA.	
220	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(D) recognize that gene expression is a regulated process		TX2_US6302A08	The Roles of DNA, RNA and Environmental Factors in Cell Differentiation (TX2_US6302A08)	The Animation describes various ways that genes are regulated during differentiation.	Q3 of the Question-and-Answer sheet asks students to explain the roles of DNA and RNA in cell differentiation.
221	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(D) recognize that gene expression is a regulated process		TX2_US6402A01	The Evolution and Complexity of Cells I: The First Cell (TX2_US6402A01)	The Enrichment Sheet teaches how genes are regulated in the lac operon.	The Enrichment Sheet asks students how genes are regulated in the lac operon.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
222	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(E) identify and illustrate changes in DNA and evaluate the significance of these changes	(i) identify changes in DNA	TX2_US6302A01	Mutations (TX2_US6302A01)	The Animation identifies changes in DNA.	The Question-and-Answer sheet asks students to identify changes in DNA.
223	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(E) identify and illustrate changes in DNA and evaluate the significance of these changes	(i) identify changes in DNA	TX2_US6302A01	Mutations (TX2_US6302A01)	The Enrichment Sheet identifies changes in DNA .	The Enrichment Sheet asks students to identify changes in DNA.
224	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(E) identify and illustrate changes in DNA and evaluate the significance of these changes	(ii) illustrate changes in DNA	TX2_US6302A01	Mutations (TX2_US6302A01)	The Animation illustrates changes in DNA.	The Question-and-Answer sheet asks students to illustrate changes in DNA.
225	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(E) identify and illustrate changes in DNA and evaluate the significance of these changes	(ii) illustrate changes in DNA	TX2_US6302A01	Mutations (TX2_US6302A01)	The Enrichment Sheet illustrates changes in DNA.	The Enrichment Sheet asks students to illustrate changes in DNA.
226	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(E) identify and illustrate changes in DNA and evaluate the significance of these changes	(iii) evaluate the significance of changes [in DNA]	TX2_US6302A01	Mutations (TX2_US6302A01)	The Animation evaluates the significance of changes in DNA.	The Question-and-Answer sheet asks students to evaluate the significance of changes in DNA.
227	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(E) identify and illustrate changes in DNA and evaluate the significance of these changes	(iii) evaluate the significance of changes [in DNA]	TX2_US6302A01	Mutations (TX2_US6302A01)	The Enrichment Sheet evaluates the significance of changes in DNA.	The Enrichment Sheet asks students to evaluate the significance of changes in DNA.
228	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(F) predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance	(i) predict possible outcomes of various genetic combinations	TX2_US630102XP	Mendel's Experiment (TX2_US630102XP)	In Part 3 of the Activity Object, students are required to predict possible outcomes of hybrid combinations.	Q4 of the "Learner Journal" section of the Activity Sheet asks students to predict possible outcomes of various genetic combinations.
229	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(F) predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance	(i) predict possible outcomes of various genetic combinations	TX2_US6301A02	Dihybrid Crosses (TX2_US6301A02)	In the Animation, students learn how to predict possible outcomes of various genetic combinations.	Q3-Q4 of the "After the Animation" section of the Question-Answer Sheet asks students to predict possible outcomes of various genetic combinations.
230	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(F) predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance	(i) predict possible outcomes of various genetic combinations	TX2_US6301A03	Non-Mendelian Inheritance (TX2_US6301A03)	In the Animation, students learn how to predict possible outcomes of various genetic combinations.	Q2 of the "After the Animation" section of the Question-Answer Sheet asks students to predict possible outcomes of various genetic combinations.
231	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(F) predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance	(i) predict possible outcomes of various genetic combinations	TX2_US630302CD	Find the Heir: Genetics Applied (TX2_US630302CD)	In Part 2 of the Activity Object, students are required to complete an activity predicting the possible outcome of a genetic combination.	
232	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(F) predict possible outcomes of various genetic combinations such as monohybrid crosses, dihybrid crosses and non-Mendelian inheritance	(i) predict possible outcomes of various genetic combinations	TX2_US630103CD	Genetic Inheritance in People (TX2_US630103CD)	In the Activity Object, students are required to predict what the genetic makeup of an offspring will be.	
233	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(G) recognize the significance of meiosis to sexual reproduction		TX2_US6402A12	The Significance of Meiosis (TX2_US6402A12)	The Animation teaches the significance of meiosis to sexual reproduction.	The Question-Answer Sheet asks students to recognize the significance of meiosis to sexual reproduction.
234	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(H) describe how techniques such as DNA fingerprinting, genetic modifications, and chromosomal analysis are used to study the genomes of organisms	(i) describe how [various] techniques are used to study the genomes of organisms	TX2_US6303A04	DNA Fingerprinting (TX2_US6303A04)	In the Animation, the DNA fingerprinting technique is explained as a way to study the genomes of organisms.	Q1 of the "Before the Animation" section of the Question-Answer Sheet asks students to describe how various techniques are used to study the genomes of organisms.



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
235	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(H) describe how techniques such as DNA fingerprinting, genetic modifications, and chromosomal analysis are used to study the genomes of organisms	(i) describe how [various] techniques are used to study the genomes of organisms	TX2_US6303A05	Cloning (TX2_US6303A05)	In the Animation, cloning is described as a technique used to study the genomes of organisms.	Q2 of the "After the Animation" section of the Question-Answer Sheet asks students to describe how various techniques are used to study the genomes of organisms.
236	(6) Science concepts. The student knows the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics. The student is expected to:	(H) describe how techniques such as DNA fingerprinting, genetic modifications, and chromosomal analysis are used to study the genomes of organisms	(i) describe how [various] techniques are used to study the genomes of organisms	TX2_US6303A03	The Human Genome Project (TX2_US6303A03)	In the Animation, the Human Genome Project is described as a technique used to study the genomes of organisms.	
237	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(i) analyze how evidence of common ancestry among groups is provided by the fossil record	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In Part 1 of the Activity Object, fossils are analyzed for common ancestry and then grouped according to evidence from fossil records.	Q1 of the Enrichment Sheet 2 asks students to analyze how evidence of common ancestry among groups is provided by the fossil record.
238	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(i) analyze how evidence of common ancestry among groups is provided by the fossil record	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	In Parts 1, 2, & 3 of the Activity Object, students are required to analyze evidence of common ancestry among various groups, and then interpret the findings provided by fossil records.	Q1 of the Enrichment Sheet 2 asks students to analyze how evidence of common ancestry among groups is provided by the fossil record.
239	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(i) analyze how evidence of common ancestry among groups is provided by the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)	Enrichment Sheet 2 teaches the analysis of how evidence of common ancestry among groups is provided by the fossil record.	Q1 of the Enrichment Sheet 2 asks students to analyze how evidence of common ancestry among groups is provided by the fossil record.
240	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(i) analyze how evidence of common ancestry among groups is provided by the fossil record	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 teaches the analysis of how evidence of common ancestry among groups is provided by the fossil record.	Q1 of the Enrichment Sheet 2 asks students to analyze how evidence of common ancestry among groups is provided by the fossil record.
241	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(i) analyze how evidence of common ancestry among groups is provided by the fossil record	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 teaches the analysis of how evidence of common ancestry among groups is provided by the fossil record.	Q1 of the Enrichment Sheet 2 asks students to analyze how evidence of common ancestry among groups is provided by the fossil record.
242	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(ii) analyze how evidence of common ancestry among groups is provided by biogeography	TX2_US640102CD	Pangaea: Image of Earth 250 Million Years Ago (TX2_US640102CD)	Part 1 of the Activity Object analyzes evidence of common ancestry and provides explanations of various theories related to biogeography, such as plate tectonics.	
243	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(ii) analyze how evidence of common ancestry among groups is provided by biogeography	TX2_US640102CD	Pangaea: Image of Earth 250 Million Years Ago (TX2_US640102CD)	Part 3 of the Activity Object analyzes evidence of common ancestry and provides explanations of various theories related to biogeography, such as plate tectonics.	
244	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(ii) analyze how evidence of common ancestry among groups is provided by biogeography	TX2_US6402A04	Biogeography as Evidence of Evolution (TX2_US6402A04)	The Animation analyzes evidence of common ancestry among groups, and explains the findings through biogeography.	The Question-Answer Sheet asks students to analyze how evidence of common ancestry among groups is provided by biogeography.
245	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(ii) analyze how evidence of common ancestry among groups is provided by biogeography	TX2_US6402A04	Biogeography as Evidence of Evolution (TX2_US6402A04)	The Enrichment Sheet thoroughly analyzes evidence of common ancestry among groups, and explains the findings through biogeography.	The Enrichment Sheet asks students to analyze how evidence of common ancestry among groups is provided by biogeography.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
246	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(iii) analyze how evidence of common ancestry among groups is provided by homologies, including anatomical	TX2_US6402A03	Anatomical and Developmental Homologies as Evidence of Evolution (TX2_US6402A03)	In the Animation, students analyze evidence of common ancestry among groups through homologies and anatomical structure.	The Question-Answer Sheet asks students to analyze how evidence of common ancestry among groups is provided by homologies, including anatomical homology.
247	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(iii) analyze how evidence of common ancestry among groups is provided by homologies, including anatomical	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)		Q3 of Enrichment Sheet 1 asks students to analyze how evidence of common ancestry among groups is provided by homologies.
248	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(iv) analyze how evidence of common ancestry among groups is provided by homologies, including molecular	TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	The Animation analyzes how evidence of common ancestry (DNA for example) among groups is provided by molecular homologies.	The Question-Answer Sheet asks students to analyze how evidence of common ancestry among groups is provided by homologies, including molecular homology.
249	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(v) analyze how evidence of common ancestry among groups is provided by homologies, including developmental	TX2_US6402A03	Anatomical and Developmental Homologies as Evidence of Evolution (TX2_US6402A03)	In the Animation, students analyze evidence of common ancestry among groups through homologies and developmental structure.	The Question-Answer Sheet asks students to analyze how evidence of common ancestry among groups is provided by homologies, including developmental homology.
250	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(vi) evaluate how evidence of common ancestry among groups is provided by the fossil record	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	Part 2 of the Activity Object explains how evidence of common ancestry is evaluated according to fossil records.	Q2B of Enrichment Sheet 2 asks students to evaluate how evidence of common ancestry among groups is provided by a fossil.
251	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(vi) evaluate how evidence of common ancestry among groups is provided by the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)	The Animation evaluates how evidence of common ancestry among groups is provided by the fossil record. Part 3 explains how evidence of common ancestry is evaluated according to fossil records.	
252	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(vi) evaluate how evidence of common ancestry among groups is provided by the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)		Q1 of Enrichment Sheet 2 asks students to evaluate how evidence of common ancestry among groups is provided by the fossil record in cases of fossilized limbs and the number of digits.
253	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(vii) evaluate how evidence of common ancestry among groups is provided by biogeography	TX2_US640102CD	Pangaea: Image of Earth 250 Million Years Ago (TX2_US640102CD)	Part 1 evaluates evidence of common ancestry and provides explanations of various theories related to biogeography, such as plate tectonics. Part 3 evaluates evidence of common ancestry and provides explanations of various theories related to biogeography, such as plate tectonics.	
254	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(vii) evaluate how evidence of common ancestry among groups is provided by biogeography	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)		Q4 of Enrichment Sheet 1 asks to evaluate how evidence of common ancestry among groups is provided by biogeography.
255	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(vii) evaluate how evidence of common ancestry among groups is provided by biogeography	TX2_US6402A04	Biogeography as Evidence of Evolution (TX2_US6402A04)	The Animation evaluates evidence of common ancestry among groups, and explains the findings through biogeography.	
256	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(viii) evaluate how evidence of common ancestry among groups is provided by homologies, including anatomical	TX2_US6402A03	Anatomical and Developmental Homologies as Evidence of Evolution (TX2_US6402A03)	The Animation evaluates how evidence of common ancestry among groups is provided by homologies, including anatomical structure.	The Question-Answer Sheet asks students to evaluate how evidence of common ancestry among groups is provided by homologies, including molecular homology.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
257	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(ix) evaluate how evidence of common ancestry among groups is provided by homologies, including molecular	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	In Enrichment Sheet 1, students evaluate how evidence of common ancestry among groups is provided by homologies, including molecular.	Q6 of Enrichment Sheet 1 asks students to evaluate how evidence of common ancestry among groups is provided by homologies, including molecular homology.
258	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(ix) evaluate how evidence of common ancestry among groups is provided by homologies, including molecular	TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	The Animation evaluates how evidence of common ancestry (DNA for example) among groups is provided by molecular homologies.	The Question-Answer Sheet asks students to evaluate how evidence of common ancestry (DNA for example) among groups is provided by molecular homologies.
259	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental	(x) evaluate how evidence of common ancestry among groups is provided by homologies, including developmental	TX2_US6402A03	Anatomical and Developmental Homologies as Evidence of Evolution (TX2_US6402A03)	The Animation evaluates how evidence of common ancestry among groups is provided by homologies, including developmental processes.	The Question-Answer Sheet asks students to evaluate how evidence of common ancestry among groups is provided by homologies, including developmental homology.
260	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(i) analyze scientific explanations concerning any data of sudden appearance in the fossil record	TX2_US6402A01	The Evolution and Complexity of Cells I: The First Cell (TX2_US6402A01)	The Animation analyzes scientific explanations concerning any data of sudden appearance in the fossil record through the discovery of the oldest fossil cyanobacteria, in Australia.	The Question-Answer Sheet asks students to analyze scientific explanations concerning any data of sudden appearance in the fossil record.
261	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(i) analyze scientific explanations concerning any data of sudden appearance in the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)	The Animation analyzes scientific explanations such as evolution and prokaryotic cells, and their sudden appearance in the fossil record.	Q2A of Enrichment Sheet 2 asks students to analyze scientific explanations such as evolution and prokaryotic cells and their sudden appearance in the fossil record.
262	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(i) analyze scientific explanations concerning any data of sudden appearance in the fossil record	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	Enrichment Sheet 2 analyzes scientific explanations such as evolution and prokaryotic cells, and their sudden appearance in the fossil record.	Q2A of Enrichment Sheet 2 asks students to analyze scientific explanations such as evolution and prokaryotic cells and their sudden appearance in the fossil record.
263	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(i) analyze scientific explanations concerning any data of sudden appearance in the fossil record	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	Enrichment Sheet 2 analyzes scientific explanations such as evolution and prokaryotic cells, and their sudden appearance in the fossil record.	Q2A of Enrichment Sheet 2 asks students to analyze scientific explanations such as evolution and prokaryotic cells and their sudden appearance in the fossil record.
264	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(i) analyze scientific explanations concerning any data of sudden appearance in the fossil record	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 analyzes scientific explanations such as evolution and prokaryotic cells, and their sudden appearance in the fossil record.	Q2-Q3 of Enrichment Sheet 2 asks students to analyze scientific explanations such as evolution and prokaryotic cells and their sudden appearance in the fossil record.
265	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(i) analyze scientific explanations concerning any data of sudden appearance in the fossil record	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 analyzes scientific explanations such as evolution and prokaryotic cells, and their sudden appearance in the fossil record.	Q2A of Enrichment Sheet 2 asks students to analyze scientific explanations such as evolution and prokaryotic cells and their sudden appearance in the fossil record.
266	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(ii) analyze scientific explanations concerning any data of stasis in the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)	The Animation analyzes scientific explanations such as evolution and prokaryotic cells, and their stasis in the fossil record.	Q3A of Enrichment Sheet 2 asks students to analyze scientific explanations concerning any data of stasis in the fossil record.
267	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(ii) analyze scientific explanations concerning any data of stasis in the fossil record	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	Part 1 of the Activity Object analyzes scientific explanations concerning any data of stasis in the fossil record. Part 2 analyzes scientific explanations concerning any data of stasis in the fossil record.	Q3A of Enrichment Sheet 2 asks students to analyze scientific explanations concerning any data of stasis in the fossil record.
268	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(ii) analyze scientific explanations concerning any data of stasis in the fossil record	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	Part 3 of the Activity Object analyzes scientific explanations concerning any data of stasis in the fossil record.	Q3A-Q3B of Enrichment Sheet 2 asks students to analyze scientific explanations concerning any data of stasis in the fossil record.
269	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(ii) analyze scientific explanations concerning any data of stasis in the fossil record	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 analyzes scientific explanations concerning any data of stasis in the fossil record.	Q4A of Enrichment Sheet 2 asks students to analyze scientific explanations concerning any data of stasis in the fossil record.



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
282	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(v) evaluate scientific explanations concerning any data of stasis in the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)	The Animation evaluates the scientific explanation of evolution for data of stasis in the fossil record.	Q3B of Enrichment Sheet 2 asks students to evaluate how identifying animal fossils can scientifically explain data of stasis in the fossil record.
283	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(v) evaluate scientific explanations concerning any data of stasis in the fossil record	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	The Activity Object evaluates how identifying animal fossils can scientifically explain data of stasis in the fossil record.	Q3B of Enrichment Sheet 2 asks students to evaluate how identifying animal fossils can scientifically explain data of stasis in the fossil record.
284	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(v) evaluate scientific explanations concerning any data of stasis in the fossil record	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	The Activity Object evaluates how analyzing fossil evidence can scientifically explain data of stasis in the fossil record.	Q3C of Enrichment Sheet 2 asks students to evaluate how identifying animal fossils can scientifically explain data of stasis in the fossil record.
285	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(v) evaluate scientific explanations concerning any data of stasis in the fossil record	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 evaluates how analyzing fossil evidence can scientifically explain data of stasis in the fossil record.	Q4B of Enrichment Sheet 2 asks students to evaluate how identifying animal fossils can scientifically explain data of stasis in the fossil record.
286	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(v) evaluate scientific explanations concerning any data of stasis in the fossil record	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 evaluates how analyzing fossil evidence can scientifically explain data of stasis in the fossil record.	Q3B of Enrichment Sheet 2 asks students to evaluate how identifying animal fossils can scientifically explain data of stasis in the fossil record.
287	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(vi) evaluate scientific explanations concerning any data of sequential nature of groups in the fossil record	TX2_US640101CD	Sorting and Identifying Animal Fossils (TX2_US640101CD)	The Activity Object evaluates scientific explanations, such as fossil evidence, concerning any data of sequential nature of groups in the fossil record.	Q5 of Enrichment Sheet 2 asks students to evaluate scientific explanations, such as fossil evidence, concerning any data of sequential nature of groups in the fossil record.
288	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(vi) evaluate scientific explanations concerning any data of sequential nature of groups in the fossil record	TX2_US640103CD	Analysis of Fossil Evidence (TX2_US640103CD)	The Activity Object evaluates scientific explanations, such as the analysis of fossil evidence, concerning any data of sequential nature of groups in the fossil record.	Q5 of Enrichment Sheet 2 asks students to evaluate scientific explanations, such as fossil evidence, concerning any data of sequential nature of groups in the fossil record.
289	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(vi) evaluate scientific explanations concerning any data of sequential nature of groups in the fossil record	TX2_US6402A06	Fossils as Evidence of Evolution (TX2_US6402A06)	The Animation evaluates scientific explanations, such as evolution, concerning any data of sequential nature of groups in the fossil record.	Q5 of Enrichment Sheet 2 asks students to evaluate scientific explanations, such as fossil evidence, concerning any data of sequential nature of groups in the fossil record.
290	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(vi) evaluate scientific explanations concerning any data of sequential nature of groups in the fossil record	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 evaluates scientific explanations, such as evolution, concerning any data of sequential nature of groups in the fossil record.	Q6 of Enrichment Sheet 2 asks students to evaluate scientific explanations, such as fossil evidence, concerning any data of sequential nature of groups in the fossil record.
291	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(B) analyze and evaluate scientific explanations concerning any data of sudden appearance, stasis, and sequential nature of groups in the fossil record	(vi) evaluate scientific explanations concerning any data of sequential nature of groups in the fossil record	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 evaluates scientific explanations, such as evolution, concerning any data of sequential nature of groups in the fossil record.	Q4B of Enrichment Sheet 2 asks students to evaluate scientific explanations, such as fossil evidence, concerning any data of sequential nature of groups in the fossil record.
292	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(C) analyze and evaluate how natural selection produces change in populations, not individuals	(i) analyze how natural selection produces change in populations, not individuals	TX2_US6402A11	Types of Natural Selection (TX2_US6402A11)	The Animation analyzes how natural selection produces changes in populations, not individuals, through stabilizing selection, directional selection, and disruptive selection.	The Question-Answer Sheet asks students to analyze how natural selection produces change in populations, not individuals.
293	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(C) analyze and evaluate how natural selection produces change in populations, not individuals	(ii) evaluate how natural selection produces change in populations, not individuals	TX2_US6402A11	Types of Natural Selection (TX2_US6402A11)	The Animation evaluates how natural selection produces changes in populations, not individuals, through stabilizing selection, directional selection, and disruptive selection.	The Question-Answer Sheet asks students to evaluate how natural selection produces change in populations, not individuals.
294	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(i) analyze how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, students analyze the findings from Part 1 and use them to explain why inherited variation results in differential reproductive success.	The Activity Sheet asks students to analyze why the elements of natural selection, including inherited variation, result in differential reproductive success.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
295	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(i) analyze how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Part 3 of the Activity Object, students analyze the findings from Part 2 and use them to explain why inherited variation results in differential reproductive success.	
296	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(i) analyze how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students analyze how the elements of natural selection, including inherited variation, result in differential reproductive success.	Q1 of Enrichment Sheet 1 asks students to analyze how the elements of natural selection, including inherited variation, result in differential reproductive success.
297	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(i) analyze how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students analyze how the elements of natural selection, including inherited variation, result in differential reproductive success.	Q1 of Enrichment Sheet 1 asks students to analyze how the elements of natural selection, including inherited variation, result in differential reproductive success.
298	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(ii) analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In Part 2 of the Activity Object, students analyze their observations based on elements of natural selection, including the potential of a population to produce more offspring than can survive, resulting in differential reproductive success.	
299	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(ii) analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US6603A03	The Distribution of Seeds (TX2_US6603A03)	In the Animation, students analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.	The Enrichment Sheet asks students to analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.
300	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(ii) analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.	Q2 of Enrichment Sheet 1 asks students to analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.
301	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(ii) analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.	Q2 of Enrichment Sheet 1 asks students to analyze how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.
302	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iii) analyze how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In Parts 2 & 3 of the Activity Object, elements of natural selection are analyzed, including a finite supply of environmental resources for a paramecium to survive, resulting in differential success.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
303	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iii) analyze how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	Enrichment Sheet 1 analyzes how a finite supply of environmental resources results in differential reproductive success .	Enrichment Sheet 1 asks students to analyze a situation in which a finite supply of environmental resources results in differential reproductive success.
304	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iii) analyze how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Part 3 of the Activity Object, elements of natural selection are analyzed, including a finite supply of environmental resources for moths to survive, resulting in differential reproductive success.	
305	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iii) analyze how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Parts 2 & 3 of the Activity Object, elements of natural selection are analyzed, including a finite supply of environmental resources for different species of birds to survive, resulting in differential success.	
306	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iv) evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 1 of the Activity Object, students evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success through beak adaptation in birds. In Part 2 of the Activity Object, students evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success through beak adaptation in birds.	The Activity Sheet asks students to evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success, through beak adaptation in birds.
307	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iv) evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)		Q1 of Enrichment Sheet 1 asks students to evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success.
308	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iv) evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success.	Q1 of Enrichment Sheet 1 asks students to evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success.
309	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(iv) evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success.	Q1 of Enrichment Sheet 1 asks students to evaluate how the elements of natural selection, including inherited variation, result in differential reproductive success.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
310	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(v) evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In Part 2 of the Activity Object, students evaluate elements of natural selection, including the potential of a population to produce more offspring than can survive, through observing different species of paramecium reproducing.	In Section 3 of the Activity Object, students evaluate elements of natural selection, including the potential of a population to produce more offspring than can survive, through observing different species of paramecium reproducing. In Section 4 of the Activity Object, students evaluate elements of natural selection, including the potential of a population to produce more offspring than can survive, through paramecium and rabbits having differential reproductive success.
311	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(v) evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Enrichment Sheet 1, students evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.	Q2 of Enrichment Sheet 1 asks students to evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.
312	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(v) evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.	Q2 of Enrichment Sheet 1 asks students to evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.
313	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(v) evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.	Q2 of Enrichment Sheet 1 asks students to evaluate how the elements of natural selection, including the potential of a population to produce more offspring than can survive, result in differential reproductive success.
314	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(vi) evaluate how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	Part 4 of the Activity Object evaluates the interactions between different paramecium in reference to using finite supplies of environmental resources and having differential reproductive success. This evaluation is also applied to the example of rabbits outsourcing existing species in Australia.	
315	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(vi) evaluate how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	Enrichment Sheet 1 evaluates how a finite supply of environmental resources results in differential reproductive success .	Enrichment Sheet 1 asks students to evaluate how a finite supply of environmental resources results in differential reproductive success.
316	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(vi) evaluate how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Part 3 of the Activity Object, the survival of the moth species is evaluated for elements of natural selection, concluding that the lack of a finite supply of environmental resources results in the differential success of the darker moths.	
317	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(D) analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	(vi) evaluate how the elements of natural selection, including a finite supply of environmental resources, result in differential reproductive success	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, survival is explained by evaluating the elements of natural selection, concluding that species that use a finite supply of resources most efficiently will have differential success.	



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
318	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(i) analyze the relationship of natural selection to adaptation	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Part 2 of the Activity Object, students are required to analyze the relationship between natural selection and adaption in reference to the survival of the moth species.	
319	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(i) analyze the relationship of natural selection to adaptation	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students analyze the relationship of natural selection to adaptation.	Q3 of Enrichment Sheet 1 asks students to analyze the relationship of natural selection to adaptation.
320	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(i) analyze the relationship of natural selection to adaptation	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, the system analyzes the findings from Part 1 to draw a relationship between how natural selection and adaption affect the beaks of birds.	Q2 of the "Reflections" section of the Activity Sheet asks the student to explain the interactions of the Activity Object. Answers should include an analysis of the relationship of natural selection to adaption in reference to the examples.
321	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(i) analyze the relationship of natural selection to adaptation	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Enrichment Sheet 1, students analyze the relationship of natural selection to adaptation.	Q3 of Enrichment Sheet 1 asks students to analyze the relationship of natural selection to adaptation.
322	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(i) analyze the relationship of natural selection to adaptation	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students analyze the relationship of natural selection to adaptation.	Q3 of Enrichment Sheet 1 asks students to analyze the relationship of natural selection to adaptation.
323	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(ii) analyze the relationship of natural selection to the development of diversity in species	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, the Activity Object analyzes the relationship of natural selection to the development of diversity in species by displaying different bird species and explaining their adaption to the environment in which they live.	Q1 of the "Reflections" section of the Activity Sheet asks the student to explain the interactions of the Activity Object. In their answers, students should analyze how natural selection contributes to the development of diversity in species.
324	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(ii) analyze the relationship of natural selection to the development of diversity in species	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Enrichment Sheet 1, students analyze the relationship of natural selection to the development of diversity in species.	Q4 of Enrichment Sheet 1 asks students to analyze the relationship of natural selection to the development of diversity in species.
325	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(ii) analyze the relationship of natural selection to the development of diversity in species	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Part 2 of the Activity Object analyzes the relationship between natural selection and the development of diversity in species through examples of moths and bears adapting to their environment for survival.	
326	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(ii) analyze the relationship of natural selection to the development of diversity in species	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students analyze the relationship of natural selection to the development of diversity in species.	Q4 of Enrichment Sheet 1 asks students to analyze the relationship of natural selection to the development of diversity in species.
327	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(ii) analyze the relationship of natural selection to the development of diversity in species	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students analyze the relationship of natural selection to the development of diversity in species	Q4 of Enrichment Sheet 1 asks students to analyze the relationship of natural selection to the development of diversity in species.
328	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, the system analyzes the relationship between natural selection and the development of diversity among species by displaying different bird species and explaining their adaption to the environment in which they live.	Q1 of the "Reflections" section of the Activity Sheet asks students to explain the interactions of the Activity Object. In their answers, students should include an analysis of how natural selection contributes to the development of diversity among bird species.
329	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Part 2 of the Activity Object analyzes the relationship between natural selection and the development of diversity among species through examples of moths and bears adapting to their environment for survival.	
330	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 analyzes the relationship of natural selection to the development of diversity among species.	Q7 of Enrichment Sheet 2 asks students to analyze the relationship of natural selection to the development of diversity among species.
331	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 analyzes the relationship of natural selection to the development of diversity among species.	Q5 of Enrichment Sheet 2 asks students to analyze the relationship of natural selection to the development of diversity among species.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
332	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	Enrichment Sheet 2 analyzes the relationship of natural selection to the development of diversity among species.	Q2-Q3 of Enrichment Sheet 2 ask students to analyze the relationship of natural selection to the development of diversity among species.
333	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US6303A02	Genetic Recombination (TX2_US6303A02)	Enrichment Sheet 2 analyzes the relationship of natural selection to the development of diversity among species.	Q2 & Q6 of Enrichment Sheet 2 ask students to analyze the relationship of natural selection to the development of diversity among species.
334	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iii) analyze the relationship of natural selection to the development of diversity among species	TX2_US6402A11	Types of Natural Selection (TX2_US6402A11)	The Enrichment Sheet analyzes the relationship of natural selection to the development of diversity among species.	Q1 & Q3 of the Enrichment Sheet ask students to analyze the relationship of natural selection to the development of diversity among species.
335	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iv) evaluate the relationship of natural selection to adaptation	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Part 3 of the Activity Object, the Activity Object evaluates the findings from Part 2 and explains the relationship of natural selection to adaption in moths.	
336	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iv) evaluate the relationship of natural selection to adaptation	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students evaluate the relationship of natural selection to adaptation.	Q3 in Enrichment Sheet 1 asks students to evaluate the relationship of natural selection to adaptation.
337	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iv) evaluate the relationship of natural selection to adaptation	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, the system evaluates the findings from Part 1 to draw a relationship between how natural selection and adaption affect the beaks of birds.	Q2 in the "Reflections" section of the Activity Sheet asks students to explain the interactions of the Activity Object. In their answers, students should include an evaluation of the relationship between natural selection and adaption in reference to bird beaks.
338	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iv) evaluate the relationship of natural selection to adaptation	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Enrichment Sheet 1, students evaluate the relationship of natural selection to adaptation.	Q3 in Enrichment Sheet 1 asks students to evaluate the relationship of natural selection to adaptation.
339	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(iv) evaluate the relationship of natural selection to adaptation	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students evaluate the relationship of natural selection to adaptation.	Q3 in Enrichment Sheet 1 asks students to evaluate the relationship of natural selection to adaptation.
340	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(v) evaluate the relationship of natural selection to the development of diversity in species	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, the Activity Object evaluates the relationship between natural selection and the development of diversity in species by displaying different bird species and explaining their adaption to the environment in which they live.	Q1 in the "Reflections" section of the Activity Sheet asks students to explain the interactions of the Activity Object. In their answers, students should evaluate how natural selection contributes to the development of diversity in species.
341	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(v) evaluate the relationship of natural selection to the development of diversity in species	TX2_US6402A09	Mass Extinction (TX2_US6402A09)	The Animation evaluates the relationship between natural selection and the development of diversity in species through mass extinction and an organism's resistance to environmental factors. The Animation evaluates the relationship between natural selection and the development of diversity in species through non-random mating.	
342	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(v) evaluate the relationship of natural selection to the development of diversity in species	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Part 2 of the Activity Object evaluates the relationship between natural selection and the development of diversity in species through examples of moths and bears adapting to their environment for survival.	
343	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(vi) evaluate the relationship of natural selection to the development of diversity among species	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Part 2 of the Activity Object, the Activity Object evaluates the relationship between natural selection and the development of diversity among species by displaying different bird species and explaining their adaption to the environment in which they live.	Q1 in the "Reflections" section of the Activity Sheet asks students to explain the interactions of the Activity Object. In their answers, students should evaluate how natural selection contributes to the development of diversity among species.
344	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to adaptation and to the development of diversity in and among species	(vi) evaluate the relationship of natural selection to the development of diversity among species	TX2_US6402A09	Mass Extinction (TX2_US6402A09)	The Animation evaluates the relationship between natural selection and the development of diversity among species through mass extinction and an organism's resistance to environmental factors.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
345	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to the development of diversity in and among species	(vi) evaluate the relationship of natural selection to the development of diversity among species	TX2_US6402A10	Mate Selection (TX2_US6402A10)	The Animation evaluates the relationship of natural selection to the development of diversity among species through non-random mating.	
346	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(E) analyze and evaluate the relationship of natural selection to the development of diversity in and among species	(vi) evaluate the relationship of natural selection to the development of diversity among species	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Part 2 of the Activity Object evaluates the relationship between natural selection and the development of diversity among species through examples of moths and bears adapting to their environment for survival.	
347	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(i) analyze the effects of other evolutionary mechanisms, including genetic drift	TX2_US6402A08	Genetic Drift (TX2_US6402A08)	The Animation analyzes the effects of other evolutionary mechanisms, including genetic drift.	In the Question-Answer Sheet, students are asked to analyze the effects of other evolutionary mechanisms, including genetic drift.
348	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(ii) analyze the effects of other evolutionary mechanisms, including gene flow	TX2_US6402A07	Gene Flow (TX2_US6402A07)	The Animation analyzes the effects of gene flow on populations.	In the Question-Answer Sheet, students are asked to analyze the effects of other evolutionary mechanisms, including gene flow.
349	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iii) analyze the effects of other evolutionary mechanisms, including mutation	TX2_US6302A01	Mutations (TX2_US6302A01)	The Animation analyzes the effects of evolutionary mechanisms, such as mutation, by examining how mutation occurs, and the risks associated with mutation.	In the Question-Answer Sheet, students are asked to analyze the effects of other evolutionary mechanisms, including mutation.
350	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iii) analyze the effects of other evolutionary mechanisms, including mutation	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students analyze the effects of other evolutionary mechanisms, including mutation.	Q5 in Enrichment Sheet 1 asks students to analyze the effects of other evolutionary mechanisms, including mutation.
351	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iii) analyze the effects of other evolutionary mechanisms, including mutation	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students analyze the effects of other evolutionary mechanisms, including mutation.	Q5 in Enrichment Sheet 1 asks students to analyze the effects of other evolutionary mechanisms, including mutation.
352	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iii) analyze the effects of other evolutionary mechanisms, including mutation	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Enrichment Sheet 1, students analyze the effects of other evolutionary mechanisms, including mutation.	
353	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iii) analyze the effects of other evolutionary mechanisms, including mutation	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)		Q5 in Enrichment Sheet 1 asks students to analyze the effects of other evolutionary mechanisms, including mutation.
354	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US6303A02	Genetic Recombination (TX2_US6303A02)	The Animation analyzes the effects of evolutionary mechanisms, such as recombination, by examining how mutation occurs, and the risks associated with recombination.	In the Question-Answer Sheet, students are asked to analyze the effects of other evolutionary mechanisms, including recombination. In the Enrichment Sheet, students are asked to analyze the effects of other evolutionary mechanisms, including recombination.
355	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 1 analyzes the effects of recombination.	Q6 in Enrichment Sheet 1 asks students to analyze the effects of other evolutionary mechanisms, including recombination.
356	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	Enrichment Sheet 2 analyzes the effects of recombination.	Q8A, Q8B & Q9A of Enrichment Sheet 2 ask students to analyze the effects of recombination.
357	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 1 analyzes the effects of recombination.	Q6 in Enrichment Sheet 1 asks students to analyze the effects of other evolutionary mechanisms, including recombination.
358	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 analyzes the effects of recombination.	Q6A-Q6B in Enrichment Sheet 2 ask students to analyze the effects of recombination.
359	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	Enrichment Sheet 1 analyzes the effects of recombination.	Q6 in Enrichment Sheet 1 asks students to analyze the effects of other evolutionary mechanisms, including recombination.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
360	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	Enrichment Sheet 2 analyzes the effects of recombination.	Q1A & Q4 in Enrichment Sheet 2 ask students to analyze the effects of recombination.
361	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US6303A02	Genetic Recombination (TX2_US6303A02)	Enrichment Sheet 2 analyzes the effects of recombination.	Q1A, Q1B & Q4 in Enrichment Sheet 2 ask students to analyze the effects of recombination.
362	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(iv) analyze the effects of other evolutionary mechanisms, including recombination	TX2_US6402A11	Types of Natural Selection (TX2_US6402A11)	The Enrichment Sheet analyzes the effects of recombination.	Q2A & Q5 in the Enrichment Sheet ask students to analyze the effects of recombination.
363	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(v) evaluate the effects of other evolutionary mechanisms, including genetic drift	TX2_US6402A08	Genetic Drift (TX2_US6402A08)	The Animation evaluates the effects of other evolutionary mechanisms, including genetic drift.	In the Question-Answer Sheet, students are asked to evaluate the effects of other evolutionary mechanisms, including genetic drift.
364	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(vi) evaluate the effects of other evolutionary mechanisms, including gene flow	TX2_US6402A07	Gene Flow (TX2_US6402A07)	The Animation evaluates the effects of gene flow on light and dark insects.	In the Question-Answer Sheet, students are asked to evaluate effects of other evolutionary mechanisms, including gene flow.
365	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(vii) evaluate the effects of other evolutionary mechanisms, including mutation	TX2_US6302A01	Mutations (TX2_US6302A01)	The Animation evaluates the effects of evolutionary mechanisms, such as mutation, by examining the reasons and risks for mutation.	In the Question-Answer Sheet, students are asked to evaluate the effects of other evolutionary mechanisms, including mutation.
366	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(vii) evaluate the effects of other evolutionary mechanisms, including mutation	TX2_US640201CD	Natural Selection (TX2_US640201CD)	In Enrichment Sheet 1, students evaluate the effects of other evolutionary mechanisms, including mutation.	Q6 in Enrichment Sheet 1 asks students to evaluate the effects of other evolutionary mechanisms, including mutation.
367	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(vii) evaluate the effects of other evolutionary mechanisms, including mutation	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	In Enrichment Sheet 1, students evaluate the effects of other evolutionary mechanisms, including mutation.	Q6 in Enrichment Sheet 1 asks students to evaluate the effects of other evolutionary mechanisms, including mutation.
368	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(vii) evaluate the effects of other evolutionary mechanisms, including mutation	TX2_US640202CD	Biological Adaptation: Bird Beaks (TX2_US640202CD)	In Enrichment Sheet 1, students evaluate the effects of other evolutionary mechanisms, including mutation.	Q6 in Enrichment Sheet 1 asks students to evaluate the effects of other evolutionary mechanisms, including mutation.
369	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(viii) evaluate the effects of other evolutionary mechanisms, including recombination	TX2_US6303A02	Genetic Recombination (TX2_US6303A02)	The Animation evaluates the effects of other evolutionary mechanisms, including recombination.	In the Question-Answer Sheet, students are asked to evaluate the effects of other evolutionary mechanisms, including recombination. In the Enrichment Sheet, students are asked to evaluate the effects of other evolutionary mechanisms, including recombination.
370	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(viii) evaluate the effects of other evolutionary mechanisms, including recombination	TX2_US640201CD	Natural Selection (TX2_US640201CD)	Enrichment Sheet 2 evaluates the effects of recombination.	Q6C in Enrichment Sheet 2 asks students to evaluate the effects of recombination.
371	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(viii) evaluate the effects of other evolutionary mechanisms, including recombination	TX2_US630101CD	Hardy-Weinberg Equation (TX2_US630101CD)	Enrichment Sheet 2 evaluates the effects of recombination.	Q1B & Q5 in Enrichment Sheet 2 ask students to evaluate the effects of recombination.
372	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(viii) evaluate the effects of other evolutionary mechanisms, including recombination	TX2_US6303A02	Genetic Recombination (TX2_US6303A02)	Enrichment Sheet 2 evaluates the effects of recombination.	Q1C, Q3 & Q5 in Enrichment Sheet 2 ask students to evaluate the effects of recombination.
373	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(F) analyze and evaluate the effects of other evolutionary mechanisms, including genetic drift, gene flow, mutation, and recombination	(viii) evaluate the effects of other evolutionary mechanisms, including recombination	TX2_US6402A11	Types of Natural Selection (TX2_US6402A11)	Enrichment Sheet teaches the evaluation of the effects of recombination.	Q2B & Q4 in the Enrichment Sheet ask students to evaluate the effects of recombination.
374	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(i) analyze scientific explanations concerning the complexity of the cell	TX2_US6402A01	The Evolution and Complexity of Cells I: The First Cell (TX2_US6402A01)	The Animation analyzes scientific explanations concerning the complexity of cells through the history and evolution of cells.	In the Question-Answer Sheet, students are asked to analyze scientific explanations concerning the complexity of the cell.
375	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(i) analyze scientific explanations concerning the complexity of the cell	TX2_US6402A01	The Evolution and Complexity of Cells I: The First Cell (TX2_US6402A01)	In the Enrichment Sheet, students analyze scientific explanations concerning the complexity of the cell.	In the Enrichment Sheet, students are asked to analyze the concept of the operon concerning the complexity of the cell.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
376	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(i) analyze scientific explanations concerning the complexity of the cell	TX2_US6402A02	The Evolution and Complexity of Cells II (TX2_US6402A02)	The Animation analyzes human, plant, and bacteria cells to support scientific explanations, such as endosymbiosis, concerning the complexity of the cell.	In the Question-Answer Sheet, students are asked to analyze scientific explanations concerning the complexity of the cell.
377	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(i) analyze scientific explanations concerning the complexity of the cell	TX2_US6402A02	The Evolution and Complexity of Cells II (TX2_US6402A02)	In the Enrichment Sheet, students analyze scientific explanations concerning the complexity of the cell	In the Enrichment Sheet, students are asked to analyze the evidence for endosymbiosis concerning the complexity of the cell.
378	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(i) analyze scientific explanations concerning the complexity of the cell	TX2_US680301CD	The Nervous System (TX2_US680301CD)	In the Enrichment Sheet, students analyze scientific explanations concerning the complexity of neurons (a type of cell).	In the Enrichment Sheet, students are asked to analyze the evidence for the formation of the cell with regard to neurons.
379	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(ii) evaluate scientific explanations concerning the complexity of the cell	TX2_US6402A01	The Evolution and Complexity of Cells I: The First Cell (TX2_US6402A01)	The Animation evaluates scientific explanations concerning the complexity of cells through the history and evolution of how cells originated.	In the Question-Answer Sheet, students are asked to evaluate scientific explanations concerning the complexity of the cell.
380	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(ii) evaluate scientific explanations concerning the complexity of the cell	TX2_US6402A01	The Evolution and Complexity of Cells I: The First Cell (TX2_US6402A01)	In the Enrichment Sheet, students evaluate scientific explanations concerning the complexity of the cell.	In the Enrichment Sheet, students are asked to evaluate the concept of the operon concerning the complexity of the cell.
381	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(ii) evaluate scientific explanations concerning the complexity of the cell	TX2_US6402A02	The Evolution and Complexity of Cells II (TX2_US6402A02)	The Animation evaluates human, plant, and bacteria cells to support scientific explanations, such as endosymbiosis, concerning the complexity of the cell.	In the Question-Answer Sheet, students are asked to evaluate scientific explanations concerning the complexity of the cell.
382	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(ii) evaluate scientific explanations concerning the complexity of the cell	TX2_US6402A02	The Evolution and Complexity of Cells II (TX2_US6402A02)	In the Enrichment Sheet, students evaluate scientific explanations concerning the complexity of the cell.	In the Enrichment Sheet, students are asked to evaluate the evidence for endosymbiosis concerning the complexity of the cell.
383	(7) Science concepts. The student knows evolutionary theory is a scientific explanation for the unity and diversity of life. The student is expected to:	(G) analyze and evaluate scientific explanations concerning the complexity of the cell	(ii) evaluate scientific explanations concerning the complexity of the cell	TX2_US680301CD	The Nervous System (TX2_US680301CD)	In the Enrichment Sheet, students evaluate scientific explanations concerning the complexity of neurons (a type of cell).	In the Enrichment Sheet, students are asked to evaluate the evidence for the formation of the cell with regard to neurons.
384	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(i) define taxonomy	TX2_US6404A02	History of Taxonomy (TX2_US6404A02)	The Animation defines taxonomy through classification.	In the Question-Answer Sheet, students are asked to define taxonomy.
385	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(i) define taxonomy	TX2_US6404A03	Taxonomic Ranking (TX2_US6404A03)	The Animation defines taxonomy through the taxonomic ranking system.	In the Question-Answer Sheet, students are asked to define taxonomy.
386	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(i) define taxonomy	TX2_US640406CD	Introduction to Classification (TX2_US640406CD)	In Part 3 of the Activity Object, taxonomy through classification is defined.	
387	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(ii) recognize the importance of a standardized taxonomic system to the scientific community	TX2_US640406CD	Introduction to Classification (TX2_US640406CD)	Part 3 of the Activity Object recognizes the importance of a standardized taxonomic system to the scientific community by explaining that scientists use taxonomic/classification systems as a common language for identifying and studying organisms.	
388	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(ii) recognize the importance of a standardized taxonomic system to the scientific community	TX2_US6404A02	History of Taxonomy (TX2_US6404A02)	The Animation recognizes the importance of a standardized taxonomic system to the scientific community by giving the history from which taxonomy/classification was created and used.	
389	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(ii) recognize the importance of a standardized taxonomic system to the scientific community	TX2_US6404A04	Biological Classification (TX2_US6404A04)	In the Animation, students recognize the importance of a standardized taxonomic system to the scientific community.	

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
390	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(A) define taxonomy and recognize the importance of a standardized taxonomic system to the scientific community	(ii) recognize the importance of a standardized taxonomic system to the scientific community	TX2_US6404A03	Taxonomic Ranking (TX2_US6404A03)	The Animation recognizes the importance of a standardized taxonomic system to the scientific community by explaining the history, displaying the utility, and displaying the different ways in which taxonomic systems are created.	The Question-Answer Sheet asks questions in which students must explain why taxonomy is important to scientists, and how the system clarifies confusion with common names.
391	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(i) categorize organisms using a hierarchical classification system based on similarities shared among groups	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In the Activity Object, students categorize organisms using a hierarchical classification system based on similarities shared among groups.	In Section 2 of the Activity Object, students classify various cell samples into a hierarchical scheme of domains and kingdoms based on observations of their traits and similarities, and differences to other organisms. Responses are assessed by the Activity Object software as students work through the hierarchical system, and appropriate feedback is given along the way.
392	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(i) categorize organisms using a hierarchical classification system based on similarities shared among groups	TX2_US640402CD	Classification of Animals (TX2_US640402CD)	In the Activity Object, students categorize organisms using a hierarchical classification system based on similarities shared among groups.	In Section 2 of the Activity Object, students classify various animals into a hierarchical scheme based on observations of their traits and similarities and differences to other organisms. Responses are assessed by the Activity Object software as students work through the hierarchical system, and appropriate feedback is given along the way.
393	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(i) categorize organisms using a hierarchical classification system based on similarities shared among groups	TX2_US640403CD	Classification of Bacteria (TX2_US640403CD)	In the Activity Object, students categorize organisms using a hierarchical classification system based on similarities shared among groups.	In the Activity Sheet, students classify a bacteria into a hierarchical scheme, based on similarities and differences to other bacteria.
394	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(i) categorize organisms using a hierarchical classification system based on similarities shared among groups	TX2_US640404CD	Introduction to Protists (TX2_US640404CD)	The Activity Object categorizes organisms using a hierarchical classification system based on similarities shared among groups.	In Section 2 of the Activity object, students classify various protists into a hierarchical scheme based on observations of their traits and similarities, and differences to other organisms. Responses are assessed by the Activity Object software as students work through the hierarchical system, and appropriate feedback is given along the way.
395	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(ii) categorize organisms using a hierarchical classification system based on differences among groups	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In the Activity Object, students categorize organisms using a hierarchical classification system based on differences among groups.	In Section 2 of the Activity Object, students classify various cell samples into a hierarchical scheme of domains and kingdoms based on observations of their traits, and similarities and differences to other organisms. Students responses as they work through the hierarchical system are assessed by the system, and appropriate feedbacks are given.
396	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(ii) categorize organisms using a hierarchical classification system based on differences among groups	TX2_US640402CD	Classification of Animals (TX2_US640402CD)	In the Activity Object, students categorize organisms using a hierarchical classification system based on differences among groups.	In Section 2 of the Activity Object, students classify various animals into a hierarchical scheme based on observations of their traits, and similarities and differences to other organisms. Responses are assessed by the Activity Object software as students work through the hierarchical system, and appropriate feedback is given along the way.
397	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(ii) categorize organisms using a hierarchical classification system based on differences among groups	TX2_US640403CD	Classification of Bacteria (TX2_US640403CD)	In the Activity Object, students categorize organisms using a hierarchical classification system based on differences among groups.	In the Activity Sheet, students classify a bacteria into a hierarchical scheme, based on similarities and differences to other bacteria.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
398	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(ii) categorize organisms using a hierarchical classification system based on differences among groups	TX2_US640404CD	Introduction to Protists (TX2_US640404CD)	The Activity Object categorizes organisms using a hierarchical classification system based on differences among groups.	In the Activity Sheet, students develop a hierarchical scheme to classify Chlamydomonas based on differences with other groups observed in the activity.
399	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(B) categorize organisms using a hierarchical classification system based on similarities and differences shared among groups	(ii) categorize organisms using a hierarchical classification system based on differences among groups	TX2_US640404CD	Introduction to Protists (TX2_US640404CD)		In Section 2 of the Activity Object, students classify various protists into a hierarchical scheme based on observations of their traits, and similarities and differences to other organisms. Responses are assessed by the Activity Object software as students work through the hierarchical system, and appropriate feedback is given along the way.
400	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(i) compare characteristics of taxonomic groups, including archaea	TX2_US6501A01	Archaea (TX2_US6501A01)	The Animation compares characteristics of taxonomic groups, including archaea.	Q1 of the Question-Answer Sheet asks students to compare the characteristics of the four main groups of archaea.
401	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(i) compare characteristics of taxonomic groups, including archaea	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	The Activity Object compares characteristics of taxonomic groups, including archaea.	Q3-Q4 of the Activity Sheet ask students to compare the characteristics of Archaea to other organisms.
402	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US640403CD	Classification of Bacteria (TX2_US640403CD)	In the Activity Object, students compare characteristics of taxonomic groups, including bacteria.	In the Activity Sheet, students answer a question in which they compare characteristics of taxonomic groups of bacteria.
403	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	The Activity Object compares characteristics of taxonomic groups, including bacteria.	Q4 of the Activity Sheet asks students to compare the characteristics of bacteria to other organisms.
404	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US6501A05	Benefits of Bacteria (TX2_US6501A05)	The Animation compares characteristics of taxonomic groups, including bacteria.	
405	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US6501A06	Harms of Bacteria (TX2_US6501A06)	The Animation compares characteristics of taxonomic groups, including bacteria.	
406	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US6501A03	Endospores (TX2_US6501A03)	The Animation compares characteristics of taxonomic groups, including bacteria.	
407	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US6501A02	Reproduction in Bacteria (TX2_US6501A02)	The Animation compares characteristics of taxonomic groups, including bacteria.	
408	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and	(ii) compare characteristics of taxonomic groups, including bacteria	TX2_US6501A04	Structure of Bacteria (TX2_US6501A04)	The Animation compares characteristics of taxonomic groups, including bacteria.	In the Question-Answer Sheet, students compare characteristics of taxonomic groups, including bacteria.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
409	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(iii) compare characteristics of taxonomic groups, including protists	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In the Activity Object, students compare characteristics of taxonomic groups, including protists.	Q4 of the Activity Sheet asks students to compare the characteristics of protists to other organisms.
410	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(iii) compare characteristics of taxonomic groups, including protists	TX2_US640404CD	Introduction to Protists (TX2_US640404CD)	In the Activity Object, students compare characteristics of taxonomic groups, including protists.	
411	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(iii) compare characteristics of taxonomic groups, including protists	TX2_US6502A01	Protista Kingdom (TX2_US6502A01)	The Animation compares characteristics of taxonomic groups, including protists.	
412	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(iii) compare characteristics of taxonomic groups, including protists	TX2_US6502A02	Importance of Protista (TX2_US6502A02)	The Animation compares characteristics of taxonomic groups, including protists.	
413	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(iv) compare characteristics of taxonomic groups, including fungi	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In the Activity Object, students compare characteristics of taxonomic groups, including fungi.	Q4 of the Activity Sheet asks students to compare the characteristics of fungi to other organisms.
414	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(v) compare characteristics of taxonomic groups, including plants	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In the Activity Object, students compare characteristics of taxonomic groups, including plants.	Q4 of the Activity Sheet asks students to compare the characteristics of plants to other organisms.
415	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(v) compare characteristics of taxonomic groups, including plants	TX2_US6601A01	The Plant Kingdom (TX2_US6601A01)	The Animation compares characteristics of taxonomic groups, including plants.	
416	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(v) compare characteristics of taxonomic groups, including plants	TX2_US6601A02	Comparing Monocots and Dicots (TX2_US6601A02)	The Animation compares characteristics of taxonomic groups, including plants.	
417	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US6703A01	General Characteristics of Invertebrates (TX2_US6703A01)	The Animation compares characteristics of taxonomic groups, including animals.	Q5 of the Question-Answer Sheet compares characteristics of vertebrate and invertebrate animals.
418	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US6701A01	The Animal Kingdom (TX2_US6701A01)	The Animation compares characteristics of taxonomic groups, including animals.	Q5 of the Question-Answer Sheet compares characteristics of vertebrate, invertebrate and primitive chordate animals.
419	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US640401CD	Domains and Kingdoms (TX2_US640401CD)	In the Activity Object, students compare characteristics of taxonomic groups, including animals.	Q4 of the Activity sheet asks students to compare the characteristics of animals to other organisms.



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420	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US6704A02	General Characteristics of Amphibians (TX2_US6704A02)	The Animation compares characteristics of taxonomic groups, including animals.	
421	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US6704A03	General Characteristics of Reptiles (TX2_US6704A03)	The Animation compares characteristics of taxonomic groups, including animals.	
422	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US6704A04	General Characteristics of Birds (TX2_US6704A04)	The Animation compares characteristics of taxonomic groups, including animals.	
423	(8) Science concepts. The student knows that taxonomy is a branching classification based on the shared characteristics of organisms and can change as new discoveries are made. The student is expected to:	(C) compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals	(vi) compare characteristics of taxonomic groups, including animals	TX2_US6704A05	General Characteristics of Mammals (TX2_US6704A05)	The Animation compares characteristics of taxonomic groups, including animals.	
424	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(i) compare the structures of different types of biomolecules, including carbohydrates	TX2_US6201A19	Biological Macromolecules (TX2_US6201A19)	The Animation compares the structures of carbohydrates, lipids, proteins, and nucleic acids.	In the Question-Answer Sheet, students compare the structure of carbohydrates to lipids, proteins, and nucleic acids.
425	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(i) compare the structures of different types of biomolecules, including carbohydrates	TX2_US6201A18	Carbon and Carbohydrates (TX2_US6201A18)	The Animation compares the structures of different types of carbohydrates (simple sugars, disaccharides, and monosaccharides).	In the Question-Answer Sheet, students are asked to compare the structures of monosaccharides, disaccharides, and polysaccharides.
426	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(i) compare the structures of different types of biomolecules, including carbohydrates	TX2_US6201A13	Glycogen (TX2_US6201A13)	The Animation compares the structures of different types of biomolecules, including carbohydrates.	
427	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(i) compare the structures of different types of biomolecules, including carbohydrates	TX2_US6201A07	Cellulose (TX2_US6201A07)	The Animation compares the structures of different types of biomolecules, including carbohydrates.	
428	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(i) compare the structures of different types of biomolecules, including carbohydrates	TX2_US6201A06	Chitin (TX2_US6201A06)	The Animation compares the structures of different types of biomolecules, including carbohydrates.	
429	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(i) compare the structures of different types of biomolecules, including carbohydrates	TX2_US6201A10	Starch (TX2_US6201A10)	The Animation compares the structures of different types of biomolecules, including carbohydrates.	
430	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(ii) compare the structures of different types of biomolecules, including lipids	TX2_US6201A12	Lipids (TX2_US6201A12)	The Animation compares the structures of different types of biomolecules, including lipids.	Q4 in the Question-Answer Sheet asks students to compare the structures of different types of lipids.
431	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(ii) compare the structures of different types of biomolecules, including lipids	TX2_US6201A19	Biological Macromolecules (TX2_US6201A19)	The Animation compares the structures of carbohydrates, lipids, proteins, and nucleic acids.	In the Question-Answer Sheet, students compare the structure of lipids to carbohydrates, proteins, and nucleic acids.
432	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(iii) compare the structures of different types of biomolecules, including proteins	TX2_US6201A15	Introduction to Enzymes (TX2_US6201A15)	The Animation compares the structures of different types of biomolecules, including proteins.	



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446	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(vii) compare the functions of different types of biomolecules, including proteins	TX2_US6201A16	Functions of Enzymes (TX2_US6201A16)	The Animation compares the functions of different types of biomolecules, including proteins.	
447	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(vii) compare the functions of different types of biomolecules, including proteins	TX2_US6201A11	Proteins (TX2_US6201A11)	The Animation compares the functions of different types of biomolecules, including proteins.	Q4 of the Question-Answer Sheet asks students about the different functions of different types of proteins.
448	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(vii) compare the functions of different types of biomolecules, including proteins	TX2_US6201A19	Biological Macromolecules (TX2_US6201A19)	The Animation compares the functions of carbohydrates, lipids, proteins, and nucleic acids.	In the Question-Answer Sheet, students compare the function of proteins to lipids, carbohydrates, and nucleic acids.
449	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(A) compare the structures and functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids	(viii) compare the functions of different types of biomolecules, including nucleic acids	TX2_US6201A19	Biological Macromolecules (TX2_US6201A19)	The Animation compares the functions of carbohydrates, lipids, proteins, and nucleic acids.	In the Question-Answer Sheet, students compare the function of nucleic acids to lipids, proteins, and carbohydrates.
450	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(i) compare the reactants and products of photosynthesis in terms of energy	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)	The Animation compares the products of photosynthesis and cellular respiration in terms of energy.	The Enrichment Sheet asks students to compare the products of photosynthesis and cellular respiration in terms of energy.
451	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(ii) compare the reactants and products of photosynthesis in terms of matter	TX2_US620201CD	Investigating Photosynthesis with Van Helmont (TX2_US620201CD)	In the Activity Object, students compare the reactants of photosynthesis and cellular respiration in terms of matter.	
452	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(ii) compare the reactants and products of photosynthesis in terms of matter	TX2_US620202CD	Investigating Photosynthesis with Priestley and Ingenhousz (TX2_US620202CD)	In the Activity Object, students compare the reactants of photosynthesis and cellular respiration in terms of matter.	
453	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(ii) compare the reactants and products of photosynthesis in terms of matter	TX2_US620207XP	Plants' Needs for Photosynthesis (TX2_US620207XP)	In the Activity Object, students compare the reactants of photosynthesis and cellular respiration in terms of matter.	
454	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(ii) compare the reactants and products of photosynthesis in terms of matter	TX2_US6202A06	Conversion of Glucose into Different Organic substances (TX2_US6202A06)	In the Activity Object, students compare the reactants of photosynthesis in terms of matter.	
455	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(ii) compare the reactants and products of photosynthesis in terms of matter	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)	The Animation compares the reactants of photosynthesis and cellular respiration in terms of matter.	In the Question-Answer Sheet, students describe the molecules produced during both photosynthesis and respiration, and describe the relationship between the processes.
456	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iii) compare the reactants and products of cellular respiration in terms of energy	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)	The Animation compares the products of photosynthesis and cellular respiration in terms of energy.	Q1 of the Question-Answer Sheet asks students to describe how photosynthesis stores energy in the form of glucose. In Q2, students explain how the glucose is broken down to release energy during respiration.
457	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iii) compare the reactants and products of cellular respiration in terms of energy	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)		In the Enrichment Sheet, students are asked to compare the reactants and products of cellular respiration in terms of energy.
458	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iii) compare the reactants and products of cellular respiration in terms of energy	TX2_US6202A01	Glycolysis (TX2_US6202A01)	The Animation compares the products of photosynthesis and cellular respiration in terms of energy.	

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459	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iii) compare the reactants and products of cellular respiration in terms of energy	TX2_US6202A02	Krebs Cycle (TX2_US6202A02)	The Animation compares the products of photosynthesis and cellular respiration in terms of energy.	
460	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iii) compare the reactants and products of cellular respiration in terms of energy	TX2_US6202A03	Electron Transport Chain (TX2_US6202A03)	The Animation compares the products of photosynthesis and cellular respiration in terms of energy.	
461	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iv) compare the reactants and products of cellular respiration in terms of matter	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)	The Animation compares the products of photosynthesis and cellular respiration in terms of matter.	In the Question-Answer Sheet, students describe the molecules produced during both photosynthesis and respiration, and describe the relationship between the processes.
462	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iv) compare the reactants and products of cellular respiration in terms of matter	TX2_US6202A14	Aerobic Respiration and Photosynthesis (TX2_US6202A14)	The Enrichment sheet compares the reactants and products of cellular respiration in terms of matter.	In the Enrichment Sheet, students must compare the reactants and products of cellular respiration in terms of matter.
463	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iv) compare the reactants and products of cellular respiration in terms of matter	TX2_US6202A01	Glycolysis (TX2_US6202A01)	The Animation compares the products of photosynthesis and cellular respiration in terms of matter.	
464	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iv) compare the reactants and products of cellular respiration in terms of matter	TX2_US6202A02	Krebs Cycle (TX2_US6202A02)	The Animation compares the products of photosynthesis and cellular respiration in terms of matter.	
465	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(B) compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter	(iv) compare the reactants and products of cellular respiration in terms of matter	TX2_US6202A03	Electron Transport Chain (TX2_US6202A03)	The Animation compares the products of photosynthesis and cellular respiration in terms of matter.	In the Question-Answer Sheet, students describe the energy found in molecules at different stages in respiration.
466	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(i) identify the role of enzymes	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In the Activity Object, students identify the role of enzymes.	
467	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(i) identify the role of enzymes	TX2_US6201A15	Introduction to Enzymes (TX2_US6201A15)	The Animation identifies the role of enzymes.	In the Question-Answer Sheet, students describe the role of enzymes.
468	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(i) identify the role of enzymes	TX2_US6201A16	Functions of Enzymes (TX2_US6201A16)	The Animation identifies the role of enzymes.	In the Question-Answer Sheet, students describe the role of enzymes.
469	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(i) identify the role of enzymes	TX2_US620114CD	Effect of pH on Enzyme Activity (TX2_US620114CD)	In the Activity Object, students identify the role of enzymes in different parts of the digestive system.	In the Question-Answer Sheet, students describe the roles of two different enzymes in digestion of protein.
470	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(ii) investigate the role of enzymes	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)	In the Activity Object, students investigate the role of enzymes.	In the Activity Object, students investigate the role of enzymes. Student investigations are assessed by the Activity Object software, and appropriate feedback is given as students progress through the lesson.
471	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(ii) investigate the role of enzymes	TX2_US620113CD	The Effect of Temperature on Enzyme Activity (TX2_US620113CD)		In the Activity Sheet, students answer questions based on their investigations.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
472	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(ii) investigate the role of enzymes	TX2_US6201A15	Introduction to Enzymes (TX2_US6201A15)	In the Animation, students investigate the role of enzymes.	
473	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(ii) investigate the role of enzymes	TX2_US620114CD	Effect of pH on Enzyme Activity (TX2_US620114CD)	In the Animation, students investigate the role of enzymes in digestion.	In the Activity Object, students investigate the role of enzymes in digestion. Investigations are assessed by the system, and appropriate feedback is given.
474	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(C) identify and investigate the role of enzymes	(ii) investigate the role of enzymes	TX2_US620114CD	Effect of pH on Enzyme Activity (TX2_US620114CD)		In the Activity Sheet, students answer questions about the role of enzymes in digestion, based on their investigations.
475	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(i) analyze the evidence regarding formation of simple organic molecules	TX2_US4101A13	Hydrolysis (TX2_US4101A13)	In the Animation, students analyze evidence regarding the formation of simple organic molecules from the digestion of polymers.	In the Enrichment Sheet, students analyze the evidence regarding formation of simple organic molecules. In the Question-Answer Sheet, students are asked to analyze evidence regarding the formation of simple organic molecules.
476	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(i) analyze the evidence regarding formation of simple organic molecules	TX2_US6201A18	Carbon and Carbohydrates (TX2_US6201A18)	In the Animation, students analyze evidence regarding the formation of simple organic molecules from carbon.	In the Question-Answer Sheet, students are asked to analyze evidence regarding the formation of simple organic molecules.
477	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(i) analyze the evidence regarding formation of simple organic molecules	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	In the Investigation Sheet, students analyze the evidence regarding formation of simple organic molecules.	Q3 of the Investigation Sheet asks students to analyze the evidence regarding formation of simple organic molecules.
478	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(i) analyze the evidence regarding formation of simple organic molecules	TX2_US680301CD	The Nervous System (TX2_US680301CD)	In the Enrichment Sheet, students analyze evidence regarding the formation of simple organic molecules (neurotransmitters).	Q2 of the Enrichment Sheet asks students to analyze the evidence regarding formation of simple organic molecules (neurotransmitters).
479	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(i) analyze the evidence regarding formation of simple organic molecules	TX2_US630301CD	DNA Structure (TX2_US630301CD)	In the Investigation Sheet, students analyze evidence regarding the formation of simple organic molecules.	Q1-Q2 of the Investigation Sheet ask students to analyze the evidence regarding formation of simple organic molecules.
480	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(i) analyze the evidence regarding formation of simple organic molecules	TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	In the Investigation Sheet, students analyze evidence regarding the formation of simple organic molecules.	Q1-Q2 of the Investigation Sheet ask students to analyze the evidence regarding formation of simple organic molecules.
481	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6201A18	Carbon and Carbohydrates (TX2_US6201A18)	The Animation analyzes evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of carbon and carbohydrates.	In the Question-Answer Sheet, students are asked to analyze evidence regarding organization of simple organic molecules into long, complex molecules having information.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
482	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6201A10	Starch (TX2_US6201A10)	The Animation analyzes evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of starch.	
483	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6201A13	Glycogen (TX2_US6201A13)	The Animation analyzes evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of glycogen.	
484	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US4103A02	Polymerization and Hydrolysis (TX2_US4103A02)	The Animation analyzes evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of starch.	
485	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US630301CD	DNA Structure (TX2_US630301CD)	In the Investigation Sheet, students analyze evidence regarding the organization of simple organic molecules into long, complex molecules having information.	The Investigation Sheet asks students to analyze the evidence regarding organization of simple organic molecules into long, complex molecules having information.
486	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	In the Investigation Sheet, students analyze evidence regarding the organization of simple organic molecules into long, complex molecules having information.	The Investigation Sheet asks students to analyze the evidence regarding organization of simple organic molecules into long, complex molecules having information.
487	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(ii) analyze the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	In the Investigation Sheet, students analyze evidence regarding the organization of simple organic molecules into long, complex molecules having information.	The Investigation Sheet asks students to analyze the evidence regarding organization of simple organic molecules into long, complex molecules having information.
488	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iii) evaluate the evidence regarding formation of simple organic molecules	TX2_US4101A13	Hydrolysis (TX2_US4101A13)	In the Animation, students evaluate evidence regarding formation of simple organic molecules from the digestion of polymers.	In the Enrichment Sheet, students are asked to evaluate the evidence regarding formation of simple organic molecules. In the Question-Answer Sheet, students are asked questions in which they evaluate the evidence regarding formation of simple organic molecules.
489	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iii) evaluate the evidence regarding formation of simple organic molecules	TX2_US6201A18	Carbon and Carbohydrates (TX2_US6201A18)	In the Animation, students evaluate evidence regarding the formation of simple organic molecules from carbon.	In the Question-Answer Sheet, students are asked to evaluate the evidence regarding formation of simple organic molecules.
490	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iii) evaluate the evidence regarding formation of simple organic molecules	TX2_US630301CD	DNA Structure (TX2_US630301CD)	In the Investigation Sheet, students evaluate evidence regarding the formation of simple organic molecules.	The Investigation Sheet asks students to evaluate the evidence regarding formation of simple organic molecules.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
491	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iii) evaluate the evidence regarding formation of simple organic molecules	TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	In the Investigation Sheet, students evaluate evidence regarding the formation of simple organic molecules.	The Investigation Sheet asks students to evaluate the evidence regarding formation of simple organic molecules.
492	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iii) evaluate the evidence regarding formation of simple organic molecules	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	In the Investigation Sheet, students evaluate evidence regarding the formation of simple organic molecules.	The Investigation Sheet asks students to evaluate the evidence regarding formation of simple organic molecules.
493	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iv) evaluate the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6201A18	Carbon and Carbohydrates (TX2_US6201A18)	The Animation evaluates evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of carbon and carbohydrates.	In the Question-Answer Sheet, students are asked to evaluate the evidence regarding organization of simple organic molecules into long, complex molecules having information.
494	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iv) evaluate the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6201A10	Starch (TX2_US6201A10)	The Animation evaluates evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of starch.	In the Question-Answer Sheet, students are asked to evaluate the evidence regarding organization of simple organic molecules into long, complex molecules having information.
495	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iv) evaluate the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6201A13	Glycogen (TX2_US6201A13)	The Animation evaluates evidence regarding the organization of simple organic molecules into long, complex molecules having information, through the example of glycogen.	
496	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iv) evaluate the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US630301CD	DNA Structure (TX2_US630301CD)	In the Investigation Sheet, students evaluate evidence regarding the organization of simple organic molecules into long, complex molecules having information.	The Investigation Sheet asks students to evaluate the evidence regarding organization of simple organic molecules into long, complex molecules having information.
497	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iv) evaluate the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US6402A05	Biological Molecules as Evidence of Evolution (TX2_US6402A05)	In the Investigation Sheet, students evaluate evidence regarding the organization of simple organic molecules into long, complex molecules having information.	The Investigation Sheet asks students to evaluate the evidence regarding organization of simple organic molecules into long, complex molecules having information.
498	(9) Science concepts. The student knows the significance of various molecules involved in metabolic processes and energy conversions that occur in living organisms. The student is expected to:	(D) analyze and evaluate the evidence regarding formation of simple organic molecules and their organization into long complex molecules having information such as the DNA molecule for self-replicating life	(iv) evaluate the evidence regarding organization [of simple organic molecules] into long complex molecules having information	TX2_US630203CD	DNA to Protein Synthesis (TX2_US630203CD)	In the Investigation Sheet, students evaluate evidence regarding the organization of simple organic molecules into long, complex molecules having information.	The Investigation Sheet asks students to evaluate the evidence regarding organization of simple organic molecules into long, complex molecules having information.
499	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(i) describe the interactions that occur among systems that perform the function of regulation in animals	TX2_US680301CD	The Nervous System (TX2_US680301CD)	In Part 1 of the Activity Object, the nervous system is described. In Part 2 of the Activity Object, interaction of this system with other systems that perform the functions of regulation in animals are also described.	In Section 3 of the Activity Object, students answer questions about the functions of the nervous system, some of which involve interactions with other body systems (including the muscular system, sensory system, circulatory system, etc.). Student responses are assessed by the Activity Object software, and appropriate feedback is given.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
500	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(i) describe the interactions that occur among systems that perform the function of regulation in animals	TX2_US680301CD	The Nervous System (TX2_US680301CD)		In the Activity sheet, students fill in a chart that lists the functions of various nervous system components. Some of the functions involve interactions with other body systems.
501	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(i) describe the interactions that occur among systems that perform the function of regulation in animals	TX2_US6804A01	An Organ of the Excretory System: Kidneys (TX2_US6804A01)	In the Activity Object, the excretory system is described, and the interaction of this system with other systems that perform the functions of regulation in animals are also described.	
502	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(i) describe the interactions that occur among systems that perform the function of regulation in animals	TX2_US6804A01	An Organ of the Excretory System: Kidneys (TX2_US6804A01)	In the Enrichment Sheet, the interactions of the excretory system with other body systems (including the nervous system and endocrine system) are detailed.	In the Enrichment Sheet, students are asked to describe the interactions among systems that regulate blood pressure and urine production.
503	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(i) describe the interactions that occur among systems that perform the function of regulation in animals	TX2_US680302CD	Hear with the Ear (TX2_US680302CD)	In the Activity Object, the auditory system is described, and the interaction of this system with other systems that perform the functions of regulation in animals are also described.	
504	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(ii) describe the interactions that occur among systems that perform the function of nutrient absorption in animals	TX2_US680601CD	Digestive System (TX2_US680601CD)	In Part 1 of the Activity Object, the digestive system is described as the system that performs the function of nutrient absorption in animals. In Part 4 of the Activity Object, the interactions of this system with other systems such as the circulatory system and reproductive system, are also described.	The Activity sheet asks a question about the interaction of systems that perform the function of nutrient absorption.
505	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iii) describe the interactions that occur among systems that perform the function of reproduction in animals	TX2_US6807A01	Male Reproductive System (TX2_US6807A01)	The Animation describes the interactions that occur among systems, such as the male reproductive system, that perform the functions of reproduction in animals.	
506	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iii) describe the interactions that occur among systems that perform the function of reproduction in animals	TX2_US6807A02	Menstruation (TX2_US6807A02)	The Animation describes the interactions that occur among systems, such as the female reproductive system, that perform the functions of reproduction in animals.	
507	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iii) describe the interactions that occur among systems that perform the function of reproduction in animals	TX2_US6807A04	Female Reproductive System (TX2_US6807A04)	The Animation describes the interactions that occur among systems, such as the female reproductive system, that perform the functions of reproduction in animals.	
508	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iii) describe the interactions that occur among systems that perform the function of reproduction in animals	TX2_US6807A02	Menstruation (TX2_US6807A02)		In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the functions of reproduction in animals.
509	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iii) describe the interactions that occur among systems that perform the function of reproduction in animals	TX2_US6807A03	Menstrual Cycle (TX2_US6807A03)	The Animation describes the interactions that occur among systems, such as the menstruation cycle, that perform the functions of reproduction in animals.	
510	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iv) describe the interactions that occur among systems that perform the function of defense from injury or illness in animals	TX2_US6805A12	Immune System Disorders (TX2_US6805A12)	The Animation describes interactions that occur among systems that perform the functions of defense from injury or illness in animals, as well as what happens when these functions do not provide proper defense.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the functions of defense from injury or illness in animals.



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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
511	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iv) describe the interactions that occur among systems that perform the function of defense from injury or illness in animals	TX2_US6805A13	Immune System (TX2_US6805A13)	The Animation describes the interactions that occur among systems that perform the functions of defense from injury or illness in animals.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the functions of defense from injury or illness in animals.
512	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(A) describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	(iv) describe the interactions that occur among systems that perform the function of defense from injury or illness in animals	TX2_US6804A01	An Organ of the Excretory System: Kidneys (TX2_US6804A01)	The Enrichment Sheet teaches the interaction of the endocrine and excretory systems after injury.	Q2 of the Enrichment Sheet asks students about the interaction of systems after injury.
513	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(i) describe the interactions that occur among systems that perform the function of transport in plants	TX2_US6602A11	Water Transportation in Plants (TX2_US6602A11)	The Animation describes the interactions that occur among systems that perform the function of water transport in plants.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the function of transport in plants.
514	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(i) describe the interactions that occur among systems that perform the function of transport in plants	TX2_US6602A14	Transpiration in Plants (TX2_US6602A14)	The Animation describes the interactions that occur among systems that perform the function of transport in plants.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the function of transport in plants.
515	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(i) describe the interactions that occur among systems that perform the function of transport in plants	TX2_US6602A10	Transport of Organic Matter in Plants (TX2_US6602A10)	The Animation describes the interactions that occur among systems that perform the function of transport in plants.	
516	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(ii) describe the interactions that occur among systems that perform the function of reproduction in plants	TX2_US6603A02	Life Cycle of Flowering Plants (TX2_US6603A02)	The Animation describes the interactions that occur among systems that perform the function of reproduction in plants.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the function of reproduction in plants.
517	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(ii) describe the interactions that occur among systems that perform the function of reproduction in plants	TX2_US6603A01	Alternation of Generations (TX2_US6603A01)	The Animation describes the interactions that occur among systems that perform the function of reproduction in plants, through examining mitosis, meiosis, sexual/asexual, and alternation of generation.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the function of reproduction in plants.
518	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(iii) describe the interactions that occur among systems that perform the function of response in plants	TX2_US660203XP	Phototropism in Plants (TX2_US660203XP)	Parts 1 & 4 of the Activity Object describe the interactions that occur among systems that perform the function of response in plants, through phototropism.	
519	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(iii) describe the interactions that occur among systems that perform the function of response in plants	TX2_US6602A13	Nastic Movement (TX2_US6602A13)	The Animation describes the interactions that occur among systems that perform the function of response in plants, through nastic movement.	In the Question-Answer Sheet, students are asked to describe the interactions that occur among systems that perform the function of response in plants.
520	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(iii) describe the interactions that occur among systems that perform the function of response in plants	TX2_US6602A12	Photoperiodism in Plants (TX2_US6602A12)	The Animation describes the interactions that occur among systems that perform the function of response in plants, through photoperiodism.	
521	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(B) describe the interactions that occur among systems that perform the functions of transport, reproduction, and response in plants	(iii) describe the interactions that occur among systems that perform the function of response in plants	TX2_US6602A09	Thigmotropism in Plants (TX2_US6602A09)	The Animation describes the interactions that occur among systems that perform the function of response in plants, through thigmotropism.	
522	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(C) analyze the levels of organization in biological systems and relate the levels to each other and to the whole system	(i) analyze the levels of organization in biological systems	TX2_US6801A02	Cell Organization (TX2_US6801A02)	The Animation relates the levels of organization in biological systems to each other through activities such as eating, moving, and living, explaining that systems work together to perform functions.	In the Question-Answer Sheet, students are asked to analyze the levels of organization in biological systems.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
523	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(C) analyze the levels of organization in biological systems and relate the levels to each other and to the whole system	(ii) relate the levels [of organization in biological systems] to each other	TX2_US6801A02	Cell Organization (TX2_US6801A02)	The Animation relates the levels of organization in biological systems to each other through activities such as eating, moving, and living, explaining that systems work together to perform functions.	In the Question-Answer Sheet, students are asked to relate the levels of organization in biological systems to each other.
524	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(C) analyze the levels of organization in biological systems and relate the levels to each other and to the whole system	(iii) relate the levels [of organization in biological systems] to the whole system	TX2_US6801A02	Cell Organization (TX2_US6801A02)	The Animation relates the levels of organization in biological systems including the nerve, excretion, digestive, respiration, circulation, and movement systems, to the whole system.	In the Question-Answer Sheet, students are asked to relate the levels of organization in biological systems to the whole system.
525	(10) Science concepts. The student knows that biological systems are composed of multiple levels. The student is expected to:	(C) analyze the levels of organization in biological systems and relate the levels to each other and to the whole system	(iii) relate the levels [of organization in biological systems] to the whole system	TX2_US680301CD	The Nervous System (TX2_US680301CD)	The Activity Object relates the levels of organization in biological systems to the whole system through the nervous system.	
526	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(A) describe the role of internal feedback mechanisms in the maintenance homeostasis		TX2_US6804A01	An Organ of the Excretory System: Kidneys (TX2_US6804A01)	The Animation describes the role of internal feedback mechanisms in the maintenance of homeostasis.	
527	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(A) describe the role of internal feedback mechanisms in the maintenance homeostasis		TX2_US6804A01	An Organ of the Excretory System: Kidneys (TX2_US6804A01)	The Enrichment Sheet describes how hormones interact with kidneys to regulate the water content of the blood via feedback mechanisms.	The Enrichment Sheet asks students to explain how hormones interact with kidneys to regulate the water content of the blood via feedback mechanisms.
528	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(A) describe the role of internal feedback mechanisms in the maintenance homeostasis		TX2_US680301CD	The Nervous System (TX2_US680301CD)	The Activity Object describes the role of internal feedback mechanisms in the maintenance of homeostasis.	
529	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(A) describe the role of internal feedback mechanisms in the maintenance homeostasis		TX2_US680302CD	Hear with the Ear (TX2_US680302CD)	The Activity Object describes the role of internal feedback mechanisms in the maintenance of homeostasis.	
530	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(A) describe the role of internal feedback mechanisms in the maintenance homeostasis		TX2_US680303CD	Vision and the Eye (TX2_US680303CD)	The Activity Object describes the role of internal feedback mechanisms in the maintenance of homeostasis.	
531	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(A) describe the role of internal feedback mechanisms in the maintenance homeostasis		TX2_US680201CD	The Structure of Bones (TX2_US680201CD)	The Activity Object describes the role of internal feedback mechanisms in the maintenance of homeostasis.	
532	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(i) investigate how organisms respond to external factors	TX2_US620112CD	Homeostasis (TX2_US620112CD)	In Part 2 of the Activity Object, the student investigates how an organism, such as a paramecium, responds to external factors. In Part 3 of the Activity Object, the student investigates how an organism such as a paramecium responds to external factors.	In Sections 2 and 3 of the Activity Object, students investigate how an organism such as a paramecium responds to external factors. Student investigations are assessed by the Activity Object software, and appropriate feedback is given along the way.
533	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(i) investigate how organisms respond to external factors	TX2_US620112CD	Homeostasis (TX2_US620112CD)		In the Activity Sheet, students answer questions based on their investigations.
534	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(i) investigate how organisms respond to external factors	TX2_US660203XP	Phototropism in Plants (TX2_US660203XP)	In Part 2 of the Activity Object, the student investigates how a plant responds to external factors such as light.	In Section 2 of the Activity Object, students investigate how a plant responds to external factors such as light. Student investigations are assessed by the Activity Object software, and appropriate feedback is given along the way.
535	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(i) investigate how organisms respond to external factors	TX2_US660203XP	Phototropism in Plants (TX2_US660203XP)		In the Activity Sheet, students answer questions based on their investigations.
536	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(i) investigate how organisms respond to external factors	TX2_US660203XP	Phototropism in Plants (TX2_US660203XP)	In the Investigation Sheet, students conduct an investigation to discover how coleoptiles sense light.	The Investigation Sheet assesses student investigations into how coleoptiles sense light.
537	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(ii) investigate how populations respond to external factors	TX2_US6102A02	Factors Affecting Population Growth (TX2_US6102A02)	The Animation investigates how populations respond to external factors.	In the Question-Answer Sheet, students are asked to investigate how populations respond to external factors.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
538	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(ii) investigate how populations respond to external factors	TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	In Part 1 of the Activity Object, students are required to investigate how the bald eagle population responds to the manipulation of external factors.	
539	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(iii) investigate how communities respond to external factors	TX2_US6402A09	Mass Extinction (TX2_US6402A09)	The Animation investigates how communities/species respond to external factors such as viruses and natural disasters.	In the Question-Answer Sheet, students are asked to investigate how communities respond to external factors.
540	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(iii) investigate how communities respond to external factors	TX2_US6105A02	Ecological Succession (TX2_US6105A02)	The Animation investigates how communities respond to external factors during ecological succession.	In the Question-Answer Sheet, students are asked to investigate how communities respond to external factors.
541	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(iv) analyze how organisms respond to external factors	TX2_US620112CD	Homeostasis (TX2_US620112CD)	Part 4 of the Activity Object analyzes the findings from Part 3 of the Activity Object through an explanation of how organisms respond to external factors during homeostasis.	In the Activity Sheet, students analyze how paramecia responded to external factors in an earlier investigation.
542	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(iv) analyze how organisms respond to external factors	TX2_US660203XP	Phototropism in Plants (TX2_US660203XP)	In Part 2 of the Activity Object, students are required to analyze their observations with regard to how organisms respond to external factors such as light.	
543	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(iv) analyze how organisms respond to external factors	TX2_US660203XP	Phototropism in Plants (TX2_US660203XP)	In Part 3 of the Activity Object, students are required to analyze their observations with regard to how organisms respond to external factors such as light.	
544	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(iv) analyze how organisms respond to external factors	TX2_US6602A13	Nastic Movement (TX2_US6602A13)	The Animation analyzes how plant organisms respond to external factors such as touching.	
545	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(v) analyze how populations respond to external factors	TX2_US6102A02	Factors Affecting Population Growth (TX2_US6102A02)	The Animation analyzes how populations respond to external factors.	In the Question-Answer Sheet, students are to analyze how populations respond to external factors.
546	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(v) analyze how populations respond to external factors	TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	In Part 1 of the Activity Object, students are required to analyze how the bald eagle population is affected in response to various external factors.	In the Activity Sheet, students are asked to analyze how populations respond to external factors.
547	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(v) analyze how populations respond to external factors	TX2_US6402A09	Mass Extinction (TX2_US6402A09)	The Animation analyzes how communities/species respond to external factors such as viruses and natural disasters.	In the Question-Answer Sheet, students are asked to analyze how communities respond to external factors.
548	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(vi) analyze how communities respond to external factors	TX2_US6402A09	Mass Extinction (TX2_US6402A09)	The Animation analyzes how communities/species respond to external factors such as viruses and natural disasters.	In the Question-Answer Sheet, students are asked to analyze how communities respond to external factors.
549	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(vi) analyze how communities respond to external factors	TX2_US6105A02	Ecological Succession (TX2_US6105A02)	The Animation analyzes how communities/species respond to external factors.	
550	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(B) investigate and analyze how organisms, populations, and communities respond to external factors	(vi) analyze how communities respond to external factors	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	The Activity Object analyzes how communities respond to external factors such as competition for resources.	
551	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(i) summarize the role of microorganisms in maintaining the health of organisms	TX2_US6501A05	Benefits of Bacteria (TX2_US6501A05)	The Animation summarizes the role of microorganisms, such as bacteria, in maintaining the health of larger organisms such as humans.	Q5 of the Question-Answer Sheet asks students to summarize the role of microorganisms in maintaining the health of organisms.
552	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(i) summarize the role of microorganisms in maintaining the health of organisms	TX2_US6502A02	Importance of Protista (TX2_US6502A02)	The Animation summarizes the role of microorganisms, such as protista, in maintaining the health of larger organisms.	
553	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(ii) summarize the role of microorganisms in maintaining the health of ecosystems	TX2_US6501A05	Benefits of Bacteria (TX2_US6501A05)	The Animation summarizes the role of microorganisms, such as bacteria, in maintaining the health of the ecosystem, by being present in food and medicine.	Q3 of the Question-Answer Sheet asks students to summarize the role of microorganisms in maintaining the health of ecosystems.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
554	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(ii) summarize the role of microorganisms in maintaining the health of ecosystems	TX2_US6502A02	Importance of Protista (TX2_US6502A02)	The Animation summarizes the role of protista in maintaining the health of an ecosystem.	
555	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(ii) summarize the role of microorganisms in maintaining the health of ecosystems	TX2_US650101CD	Hidden Heroes: Bacteria (TX2_US650101CD)	Part 2 of the Activity Object summarizes the role of microorganisms, such as bacteria, in maintaining the health of the ecosystem, in soil.	
556	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(iii) summarize the role of microorganisms in disrupting the health of organisms	TX2_US6501A06	Harms of Bacteria (TX2_US6501A06)	The Animation summarizes the role of microorganisms, such as bacteria, in disrupting the health of organisms such as the human body.	Q5 of the Question-Answer Sheet asks students to summarize the role of microorganisms in disrupting the health of organisms.
557	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(C) summarize the role of microorganisms in both maintaining and disrupting the health of both organisms and ecosystems	(iv) summarize the role of microorganisms in disrupting the health of ecosystems	TX2_US6502A03	Disruptive Effect of Microorganisms on Ecosystems (TX2_US6502A03)	The Animation summarizes the role of microorganisms in disrupting the health of ecosystems.	In the Question-Answer Sheet, students are asked to summarize the role of microorganisms in disrupting the health of ecosystems.
558	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(D) describe how events and processes that occur during ecological succession can change populations and species diversity	(i) describe how events that occur during ecological succession can change populations	TX2_US6105A02	Ecological Succession (TX2_US6105A02)	The Animation describes how events, such as natural disasters, occur during ecological succession, which causes changes in populations that cannot survive in the new environment.	In the Enrichment Sheet, students describe how events that occur during ecological succession can change populations. In the Question-Answer Sheet, students are asked to describe how events that occur during ecological succession can change populations.
559	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(D) describe how events and processes that occur during ecological succession can change populations and species diversity	(ii) describe how events that occur during ecological succession can change species diversity	TX2_US6105A02	Ecological Succession (TX2_US6105A02)	The Animation describes how events, such as natural disasters, occur during ecological succession, which causes changes in populations that cannot survive in the new environment.	In the Enrichment Sheet, students describe how events that occur during ecological succession can change species' diversity. In the Question-Answer Sheet, students are asked to describe how events that occur during ecological succession can change species' diversity.
560	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(D) describe how events and processes that occur during ecological succession can change populations and species diversity	(iii) describe how processes that occur during ecological succession can change populations	TX2_US6105A02	Ecological Succession (TX2_US6105A02)	The Animation describes how events, such as natural disasters, occur during ecological succession, which causes changes in populations that cannot survive in the new environment.	In the Enrichment Sheet, students describe how processes that occur during ecological succession can change populations. In the Question-Answer Sheet, students are asked to describe how processes that occur during ecological succession can change populations.
561	(11) Science concepts. The student knows that biological systems work to achieve and maintain balance. The student is expected to:	(D) describe how events and processes that occur during ecological succession can change populations and species diversity	(iv) describe how processes that occur during ecological succession can change species diversity	TX2_US6105A02	Ecological Succession (TX2_US6105A02)	The Animation describes how events, such as natural disasters, occur during ecological succession, which causes changes in populations that cannot survive in the new environment.	In the Enrichment Sheet, students describe how processes that occur during ecological succession can change species' diversity. In the Question-Answer Sheet, students are asked to describe how processes that occur during ecological succession can change species' diversity.
562	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(i) interpret relationships, including predation, among organisms	TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	In the Activity Object, students interpret relationships, including predation, among organisms.	
563	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(i) interpret relationships, including predation, among organisms	TX2_US6102A02	Factors Affecting Population Growth (TX2_US6102A02)	In the Animation, students must interpret the predatory relationship between hawks, snakes, and mice.	The Activity Sheet asks students to interpret relationships, including predation, among organisms.
564	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(ii) interpret relationships, including parasitism, among organisms	TX2_US610102CD	Parasitism (TX2_US610102CD)	In the Activity Object, students interpret relationships, including parasitism, among organisms.	In Section 4 of the Activity object, students must interpret relationships as parasitisms. Student responses are assessed by the Activity Object software, and appropriate feedback is given along the way.
565	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(ii) interpret relationships, including parasitism, among organisms	TX2_US610102CD	Parasitism (TX2_US610102CD)		In the Activity Sheet, students interpret examples of relationships, including parasitism, commensalism, and mutualism.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
566	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(iii) interpret relationships, including commensalism, among organisms	TX2_US610103CD	Commensalism (TX2_US610103CD)	In the Activity Object, students interpret relationships, including commensalism, among organisms.	In Section 4 of the Activity object, students must interpret relationships as mutualisms. Student responses are assessed by the Activity Object software, and appropriate feedback is given along the way.
567	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(iii) interpret relationships, including commensalism, among organisms	TX2_US610103CD	Commensalism (TX2_US610103CD)		In the Activity Sheet, students interpret several examples of commensalism.
568	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(iii) interpret relationships, including commensalism, among organisms	TX2_US610102CD	Parasitism (TX2_US610102CD)		In the Activity Sheet, students interpret examples of relationships, including parasitism, commensalism, and mutualism.
569	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(iv) interpret relationships, including mutualism, among organisms	TX2_US610104CD	Mutualism (TX2_US610104CD)	In the Activity Object, students interpret relationships, including mutualism, among organisms.	In Section 3 of the Activity object, students must interpret relationships as mutualisms. Student responses are assessed by the Activity Object software, and appropriate feedback is given along the way.
570	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(iv) interpret relationships, including mutualism, among organisms	TX2_US610104CD	Mutualism (TX2_US610104CD)		In the Activity Sheet, students interpret several examples of mutualism presented in a chart.
571	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(iv) interpret relationships, including mutualism, among organisms	TX2_US610102CD	Parasitism (TX2_US610102CD)		In the Activity Sheet, students interpret examples of relationships, including parasitism, commensalism, and mutualism.
572	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(v) interpret relationships, including competition, among organisms	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)	In the Activity Object, students interpret relationships, including competition, among organisms.	In the Activity Sheet, students interpret competition that occurs among paramecia in a recreation of Georgy's experiment.
573	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(A) interpret relationships, including predation, parasitism, commensalism, mutualism, and competition, among organisms	(v) interpret relationships, including competition, among organisms	TX2_US610101CD	Interactions Among Organisms - Competition (TX2_US610101CD)		In the Activity Object, students interpret experimental data related to competition between organisms. Student responses are assessed by the Activity Object software, and appropriate feedback is given along the way.
574	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(B) compare variations and adaptations of organisms in different ecosystems	(i) compare variations of organisms in different ecosystems	TX2_US6105A03	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_US6105A03)	The Animation compares variations of organisms in different ecosystems.	In the Question-Answer Sheet, students are asked to compare variations of organisms in different ecosystems.
575	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(B) compare variations and adaptations of organisms in different ecosystems	(i) compare variations of organisms in different ecosystems	TX2_US660201CD	Plant Survival: The Xeriscape Garden (TX2_US660201CD)	In Part 2 of the Activity Object, the Activity Object compares variations of organisms in different ecosystems. In Part 1 of the Activity Object, students compare variations of organisms in different ecosystems, including plants and their characteristics for survival.	
576	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(B) compare variations and adaptations of organisms in different ecosystems	(ii) compare adaptations of organisms in different ecosystems	TX2_US6105A03	Comparing the Adaptations of Organisms in Different Ecosystems (TX2_US6105A03)	The Animation compares adaptations of organisms in different ecosystems.	In the Question-Answer Sheet, students are asked to compare adaptations of organisms in different ecosystems.
577	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(B) compare variations and adaptations of organisms in different ecosystems	(ii) compare adaptations of organisms in different ecosystems	TX2_US660201CD	Plant Survival: The Xeriscape Garden (TX2_US660201CD)	In Part 2 of the Activity Object, the Activity Object compares adaptations of organisms in different ecosystems. In Part 1 of the Activity Object, the student compares variations of organisms in different ecosystems, including plants and their characteristics for survival.	
578	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(i) analyze the flow of matter through trophic levels using various models, including food chains	TX2_US6103A02	Food Chains and Food Webs (TX2_US6103A02)	The Animation analyzes the flow of matter through trophic levels using various models, including food chains.	The Enrichment Sheet contains a question in which a food chain is analyzed for changes to the flow of matter.

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#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
579	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(ii) analyze the flow of matter through trophic levels using various models, including food webs	TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	The Activity Object analyzes the flow of matter through trophic levels using various models, including food webs.	
580	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(ii) analyze the flow of matter through trophic levels using various models, including food webs	TX2_US6103A02	Food Chains and Food Webs (TX2_US6103A02)	The Animation analyzes the flow of matter through trophic levels using various models, including food webs.	The Enrichment Sheet contains a question in which a food web is analyzed for changes to the flow of matter.
581	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(ii) analyze the flow of matter through trophic levels using various models, including food webs	TX2_US6103A03	Ecological Pyramids (TX2_US6103A03)	The Animation analyzes the flow of matter through trophic levels using various models, including food webs.	
582	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(iii) analyze the flow of matter through trophic levels using various models, including ecological pyramids	TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	The Activity Object analyzes the flow of matter through trophic levels using various models, including ecological pyramids.	
583	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(iii) analyze the flow of matter through trophic levels using various models, including ecological pyramids	TX2_US6103A02	Food Chains and Food Webs (TX2_US6103A02)	The Animation analyzes the flow of matter through trophic levels using various models, including ecological pyramids.	
584	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(iii) analyze the flow of matter through trophic levels using various models, including ecological pyramids	TX2_US6103A03	Ecological Pyramids (TX2_US6103A03)	The Animation analyzes the flow of matter through trophic levels using various models, including ecological pyramids.	The Enrichment Sheet contains a question in which an ecological pyramid is analyzed for changes to the flow of matter.
585	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(iv) analyze the flow of energy through trophic levels using various models, including food chains	TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	In the Activity Object, students analyze the flow of energy through trophic levels using various models, including food chains.	
586	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(iv) analyze the flow of energy through trophic levels using various models, including food chains	TX2_US6103A02	Food Chains and Food Webs (TX2_US6103A02)	The Animation analyzes the flow of energy through trophic levels using various models, including food chains.	The Enrichment Sheet contains a question in which two food chains are analyzed for changes to the flow of energy.
587	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(v) analyze the flow of energy through trophic levels using various models, including food webs	TX2_US6103A02	Food Chains and Food Webs (TX2_US6103A02)	The Animation analyzes the flow of energy through trophic levels using various models, including food webs.	The Enrichment Sheet contains a question in which two food webs are analyzed for changes to the flow of energy.
588	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(v) analyze the flow of energy through trophic levels using various models, including food webs	TX2_US6103A03	Ecological Pyramids (TX2_US6103A03)	The Animation analyzes the flow of energy through trophic levels using various models, including food webs.	
589	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(vi) analyze the flow of energy through trophic levels using various models, including ecological pyramids	TX2_US6103A02	Food Chains and Food Webs (TX2_US6103A02)	In the Activity Object, students analyze the flow of energy through trophic levels using various models, including ecological pyramids.	
590	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(C) analyze the flow of matter and energy through trophic levels using various models, including food chains, food webs, and ecological pyramids	(vi) analyze the flow of energy through trophic levels using various models, including ecological pyramids	TX2_US6103A03	Ecological Pyramids (TX2_US6103A03)	The Animation analyzes the flow of energy through trophic levels using various models, including ecological pyramids.	In the Enrichment Sheet, students analyze the flow of energy through trophic levels using various models, including ecological pyramids.
591	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(D) recognize that long-term survival of species is dependent on changing resource bases that are limited		TX2_US640201CD	Natural Selection (TX2_US640201CD)	In the Enrichment Sheet, students learn that the long-term survival of species is dependent upon changing resource bases that are limited.	The Enrichment Sheet contains a question about long-term survival of species being dependent on changing resource bases that are limited.
592	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(D) recognize that long-term survival of species is dependent on changing resource bases that are limited		TX2_US610301CD	Energy Flow from Producers to Consumers (TX2_US610301CD)	After completing the Activity Object, students will recognize that the long-term survival of a species is dependent upon changing resource bases that are limited.	

**AC Correlation with TEKS 2014 Biology**

#	TEKS (Knowledge and Skills)	Student Expectation	Breakout	Item Number	Component	Learning Component Description	Assessment Component Description
593	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(i) describe the flow of matter through the carbon cycle	TX2_US6104A01	Carbon Cycle (TX2_US6104A01)	The Animation describes the flow of various forms of matter through the carbon cycle.	The Question-Answer Sheet asks students about the flow of matter through the carbon cycle.
594	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(i) describe the flow of matter through the carbon cycle	TX2_US6104A01	Carbon Cycle (TX2_US6104A01)	The Enrichment Sheet describes the flow of various forms of matter through the carbon cycle.	The Enrichment Sheet asks students about the flow of matter through the carbon cycle.
595	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(ii) describe the flow of matter through the nitrogen cycle	TX2_US6104A02	Nitrogen Cycle (TX2_US6104A02)	The Animation describes the flow of matter through the nitrogen cycle.	In the Question-Answer Sheet, students are asked to describe the flow of matter through various components of the nitrogen cycle.
596	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(ii) describe the flow of matter through the nitrogen cycle	TX2_US6104A02	Nitrogen Cycle (TX2_US6104A02)	The Enrichment Sheet describes the flow of matter through the nitrogen cycle.	The Enrichment Sheet, students are asked to describe the flow of matter through various components of the nitrogen cycle.
597	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(iii) explain the consequences of disrupting [the carbon cycle]	TX2_US6104A01	Carbon Cycle (TX2_US6104A01)	The Animation explains the consequences of disrupting the carbon cycle.	In the Enrichment Sheet, students are asked to explain the consequences of disrupting the carbon cycle. In the Question-Answer Sheet, students are asked to explain the consequences of disrupting the carbon cycle.
598	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(iii) explain the consequences of disrupting [the carbon cycle]	TX2_US6106A16	Global Warming (TX2_US6106A16)	The Animation explains the consequences of disrupting the carbon cycle, through global warming.	
599	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(iii) explain the consequences of disrupting [the carbon cycle]	TX2_US6106A17	Acid Rain (TX2_US6106A17)	The Animation explains the consequences of disrupting the carbon cycle, through acid rain and pollution.	
600	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(iv) explain the consequences of disrupting [the nitrogen cycle]	TX2_US6104A02	Nitrogen Cycle (TX2_US6104A02)	The Animation explains the consequences of disrupting the nitrogen cycle.	In the Enrichment Sheet, students are asked to explain the consequences of disrupting the nitrogen cycle. In the Question-Answer Sheet, students are asked to explain the consequences of disrupting the nitrogen cycle.
601	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(iv) explain the consequences of disrupting [the nitrogen cycle]	TX2_US6106A16	Global Warming (TX2_US6106A16)	The Animation explains the consequences of disrupting the carbon cycle, through global warming.	
602	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(E) describe the flow of matter through the carbon and nitrogen cycles and explain the consequences of disrupting these cycles	(iv) explain the consequences of disrupting [the nitrogen cycle]	TX2_US6106A17	Acid Rain (TX2_US6106A17)	The Animation explains the consequences of disrupting the carbon cycle, through acid rain and pollution.	
603	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(F) describe how environmental change can impact ecosystem stability		TX2_US6106A16	Global Warming (TX2_US6106A16)	The Animation describes how environmental change, such as global warming, can impact ecosystem stability.	In the Question-Answer Sheet, students are asked to describe how environmental change can impact ecosystem stability.
604	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(F) describe how environmental change can impact ecosystem stability		TX2_US6106A17	Acid Rain (TX2_US6106A17)	The Animation describes how environmental change, such as the pollution in acid rain, can impact ecosystem stability.	In the Question-Answer Sheet, students are asked to describe how environmental change can impact ecosystem stability.
605	(12) Science concepts. The student knows that interdependence and interactions occur within an environmental system. The student is expected to:	(F) describe how environmental change can impact ecosystem stability		TX2_US6106A18	The Effects of Natural Disasters on Ecosystems (TX2_US6106A18)	The Animation describes how environmental change, such as natural disasters, can impact ecosystem stability.	