

TEST ADMINISTRATOR MANUAL

Biology

STAAR Alternate 2

Administered April 2016

RELEASED

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Texas Essential Knowledge and Skills (TEKS) Curriculum Assessed

Biology		Cluster 1
Reporting Category 3	Biological Evolution and Classifica demonstrate an understanding of evolution and the hierarchical cla	ation: The student will f the theory of biological ssification of organisms.
Knowledge and Skills Statement Biology 7	The student knows evolutionary explanation for the unity and div	theory is a scientific ersity of life.
Essence Statement	Knows evolutionary theory is a set the unity and diversity of life.	cientific explanation for
Item 1 Prerequisite Skill	investigate how the external char are related to where it lives, how eats (1)	racteristics of an animal it moves, and what it
Item 2 Prerequisite Skill	explore how structures and funct animals allow them to survive in (3)	ions of plants and a particular environment
Item 3 Prerequisite Skill	compare the structures and funct that help them live and survive s animals or webbed feet in aquati	tions of different species uch as hooves on prairie c animals (5)
Item 4 Prerequisite Skill	compare the structures and funct that help them live and survive s animals or webbed feet in aquati	tions of different species uch as hooves on prairie c animals (5)

Biology		Cluster 2
Reporting Category 1	Cell Structure and Function: The an understanding of biomolecules cells, and that cells are the basic function of living things.	student will demonstrate s as building blocks of unit of structure and
Knowledge and Skills Statement Biology 4	The student knows that cells are of all living things with specialize specific functions and those virus cells.	the basic structures d parts that perform ses are different from
Essence Statement	Knows that all living things are concerning perform specific functions and th from cells.	omposed of cells that at viruses are different
Item 5 Prerequisite Skill	observe, record, and compare ho characteristics and behaviors of a their basic needs such as fins hel in the water (2)	w the physical animals help them meet p fish move and balance
Item 6 Prerequisite Skill	explore how structures and funct animals allow them to survive in (3)	ions of plants and a particular environment
Item 7 Prerequisite Skill	explore how adaptations enable of their environment such as compared leaves on plants (4)	organisms to survive in aring birds' beaks and
Item 8 Prerequisite Skill	compare the structures and funct that help them live and survive s animals or webbed feet in aquati	tions of different species uch as hooves on prairie c animals (5)

Biology		Cluster 3
Reporting Category 2	Mechanisms of Genetics: The stu understanding of the mechanism	dent will demonstrate an s of genetics.
Knowledge and Skills Statement Biology 6	The student knows the mechanis the role of nucleic acids and the Genetics.	ms of genetics, including principles of Mendelian
Essence Statement	Recognizes that the structure of inherited traits in organisms.	DNA determines the
Item 9 Prerequisite Skill	compare ways that young anima (1)	ls resemble their parents
Item 10 Prerequisite Skill	explore that some characteristics inherited such as the number of or flower color and recognize tha learned in response to living in a such as animals using tools to ge	s of organisms are limbs on an animal t some behaviors are certain environment et food (3)
Item 11 Prerequisite Skill	demonstrate that some likenesse and offspring are inherited, pass generation such as eye color in h leaves in plants. Other likenesses table manners or reading a book on their noses (4)	es between parents ed from generation to umans or shapes of s are learned such as and seals balancing balls
Item 12 Prerequisite Skill	differentiate between inherited tr animals such as spines on a cact and learned behaviors such as ar or a child riding a bicycle (5)	aits of plants and us or shape of a beak n animal learning tricks

Biology		Cluster 4
Reporting Category 5	Interdependence within Environn student will demonstrate an unde interdependence and interactions environmental system and their s	nental Systems: The erstanding of the s that occur within an significance.
Knowledge and Skills Statement Biology 12	The student knows that interdepe occur within an environmental sy	endence and interactions vstem.
Essence Statement	Knows that interdependence and an environmental system.	interactions occur within
Item 13 Prerequisite Skill	analyze and record examples of i in various situations such as terra pet and caregiver (1)	nterdependence found ariums and aquariums or
Item 14 Prerequisite Skill	identify and describe the flow of and predict how changes in a foo ecosystem such as removal of fro from a field (3)	energy in a food chain d chain affect the ogs from a pond or bees
Item 15 Prerequisite Skill	describe biotic and abiotic parts of organisms interact (6)	of an ecosystem in which
Item 16 Prerequisite Skill	describe producer/consumer, pre host relationships as they occur i marine, freshwater, and terrestria	dator/prey, and parasite/ n food webs within al ecosystems (8)

Biology		Cluster 5
Reporting Category 4	Biological Processes and Systems demonstrate an understanding or energy conversions, and interact systems in organisms.	s: The student will f metabolic processes, ions and functions of
Knowledge and Skills Statement Biology 10	The student knows that biologica of multiple levels.	l systems are composed
Essence Statement	Knows that biological systems ha interact.	ive functions and
Item 17 Prerequisite Skill	observe, record, and compare ho characteristics and behaviors of a their basic needs such as fins hel in the water (2)	w the physical animals help them meet p fish move and balance
Item 18 Prerequisite Skill	observe, record, and compare ho characteristics and behaviors of a their basic needs such as fins hel in the water (2)	w the physical animals help them meet p fish move and balance
Item 19 Prerequisite Skill	identify the main functions of the human organism, including the c skeletal, muscular, digestive, exc integumentary, nervous, and enc	e systems of the irculatory, respiratory, retory, reproductive, locrine systems (7)
Item 20 Prerequisite Skill	identify the main functions of the human organism, including the c skeletal, muscular, digestive, exc integumentary, nervous, and enc	e systems of the irculatory, respiratory, retory, reproductive, locrine systems (7)

Additional resources for STAAR Alternate 2, including the STAAR Alternate 2 Test Administrator Manual and the STAAR Alternate 2 Educator Guide, are available online: http://tea.texas.gov/student.assessment/ special-ed/staaralt/

BIOLOGY

- Present Stimulus 1.
- *Direct* the student to Stimulus 1. *Communicate:* The giraffe has a long neck to help it survive in its environment.
- Communicate: Find the long neck on the giraffe.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds the long neck,	-	mark A for question 1 and move to question 2.
If the student does not find the long neck,	-	 remove the stimulus; wait at least five seconds; and replicate the initial presentation instructions.
After the five-second wait time, if the student finds the long neck,	-	mark B for question 1 and move to question 2.
After the five-second wait time, if the student does not find the long neck,	-	mark C for question 1 and move to question 2.

- *Present* Stimulus 2a and 2b.
- *Direct* the student to Stimulus 2a. *Communicate:* The long neck on a giraffe allows the giraffe to eat leaves on tall trees. The giraffe can reach food that other animals cannot reach.
- *Direct* the student to each answer choice in Stimulus 2b.
- Communicate: Find the best environment for a giraffe.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds the grassland environment in Stimulus 2b,	-	mark A for question 2 and move to question 3.
If the student does not find the grassland environment in Stimulus 2b,		 model the desired student action by finding the grassland environment in Stimulus 2b and <i>communicate</i> "This is the best environment for a giraffe because of the tall trees"; and replicate the initial presentation instructions.
After teacher modeling, if the student finds the grassland environment in Stimulus 2b,	-	mark B for question 2 and move to question 3.
After teacher modeling, if the student does not find the grassland environment in Stimulus 2b,	-	mark C for question 2 and move to question 3.

- Present Stimulus 3. Communicate: Mallard ducks and brown pelicans move easily through water.
- Direct the student to Stimulus 3.
- *Direct* the student to each answer choice. *Communicate* the text in each answer choice while identifying the body features on each bird.
- Communicate: Find the body feature that allows the duck and pelican to move easily through water.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds "webbed feet,"	-	mark A for question 3 and move to question 4.
If the student does not find "webbed feet,"	-	 provide one of these allowable teacher assists to the student: Have the student identify how the duck and pelican swim through the water. OR Highlight the body parts on the birds that are identified in the answer choices.
After the selected teacher assistance, if the student finds "webbed feet,"	-	mark B for question 3 and move to question 4.
After the selected teacher assistance, if the student does not find "webbed feet,"	-	mark C for question 3 and move to question 4.

- Present Stimulus 4a and 4b.
- *Direct* the student to Stimulus 4a. *Communicate:* The armadillo and skunk have adaptations that help them survive.
- *Direct* the student to each animal in Stimulus 4a. *Communicate* the text for each animal.
- Direct the student to each answer choice in Stimulus 4b. Communicate the text in each answer choice.
- Communicate: Find how these adaptations probably help these two animals.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds "help protect them from predators,"	-	mark A for question 4 and move to question 5.
If the student does not find "help protect them from predators,"	-	replicate the initial presentation instructions.
After the teacher repeats the instructions, if the student finds "help protect them from predators,"	-	mark B for question 4 and move to question 5.
After the teacher repeats the instructions, if the student does not find "help protect them from predators,"	-	mark C for question 4 and move to question 5.

- Present Stimulus 5.
- *Direct* the student to Stimulus 5. *Communicate:* **The hummingbird is a small bird.**
- *Direct* the student to each labeled feature on the hummingbird. *Communicate:* **The hummingbird has strong wings for flying, a long, thin beak for reaching the nectar inside flowers, and a small body.**
- Communicate: Find the long, thin beak on the hummingbird.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds the long, thin beak on the hummingbird,	-	mark A for question 5 and move to question 6.
If the student does not find the long, thin beak on the hummingbird,	-	 remove the stimulus; wait at least five seconds; and replicate the initial presentation instructions.
After the five-second wait time, if the student finds the long, thin beak on the hummingbird,	-	mark B for question 5 and move to question 6.
After the five-second wait time, if the student does not find the long, thin beak on the hummingbird,	-	mark C for question 5 and move to question 6.

- Present Stimulus 6a and 6b.
- *Direct* the student to Stimulus 6a. *Communicate:* **The long, thin beak on a hummingbird helps the hummingbird reach nectar deep inside flowers.**
- *Direct* the student to each answer choice in Stimulus 6b. *Communicate:* This bird has a short, wide beak. This bird has a long, thin beak.
- Communicate: Find the bird that feeds on nectar deep inside flowers.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds the bird with a long, thin beak in Stimulus 6b,	-	mark A for question 6 and move to question 7.
If the student does not find the bird with a long, thin beak in Stimulus 6b,		 model the desired student action by finding the bird with a long, thin beak in Stimulus 6b and <i>communicate</i> "This bird uses its long, thin beak to feed on nectar deep inside flowers"; and replicate the initial presentation instructions.
After teacher modeling, if the student finds the bird with a long, thin beak in Stimulus 6b,	-	mark B for question 6 and move to question 7.
After teacher modeling, if the student does not find the bird with a long, thin beak in Stimulus 6b,	-	mark C for question 6 and move to question 7.

- *Present* Stimulus 7a and 7b.
- *Direct* the student to Stimulus 7a. *Communicate:* **The lion is showing its teeth. The long, pointed teeth are called fangs.**
- Direct the student to each answer choice in Stimulus 7b. Communicate the text in each answer choice.
- Communicate: Find how fangs are used to help the lion survive.



Scoring Instructions		
Student Action		Test Administrator Action
If the student finds "to tear meat into smaller pieces,"	-	mark A for question 7 and move to question 8.
		provide one of these allowable teacher assists to the student:
If the student does not find "to tear meat into smaller pieces,"	-	 Have the student identify what teeth are used for. OR Highlight the fangs in the photograph.
		Replicate the initial presentation instructions.
After the selected teacher assistance, if the student finds "to tear meat into smaller pieces,"	-	mark B for question 7 and move to question 8.
After the selected teacher assistance, if the student does not find "to tear meat into smaller pieces,"	-	mark C for question 7 and move to question 8.

- Present Stimulus 8a and 8b.
- *Direct* the student to the spider monkey in Stimulus 8a. *Communicate:* **Spider monkeys have long, thin tails.**
- Direct the student to the kangaroo in Stimulus 8a. Communicate: Kangaroos have large, heavy tails.
- Direct the student to each answer choice in Stimulus 8b. Communicate the text in each answer choice.
- Communicate: Find how the tails of the spider monkey and kangaroo help the animals in the same way.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds "by helping the animals move and balance in their environment,"	-	mark A for question 8 and move to question 9.	
If the student does not find "by helping the animals move and balance in their environment,"	-	replicate the initial presentation instructions.	
After the teacher repeats the instructions, if the student finds "by helping the animals move and balance in their environment,"	-	mark B for question 8 and move to question 9.	
After the teacher repeats the instructions, if the student does not find "by helping the animals move and balance in their environment,"	-	mark C for question 8 and move to question 9.	

- Present Stimulus 9.
- *Direct* the student to Stimulus 9. *Communicate:* This is the mother lion. This is her young lion cub. The parent and young lion look alike.
- Communicate: Find the young lion cub and its parent.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds the young lion cub and its parent,	-	mark A for question 9 and move to question 10.	
If the student does not find the young lion cub and its parent,	-	 remove the stimulus; wait at least five seconds; and replicate the initial presentation instructions. 	
After the five-second wait time, if the student finds the young lion cub and its parent,	-	mark B for question 9 and move to question 10.	
After the five-second wait time, if the student does not find the young lion cub and its parent,	-	mark C for question 9 and move to question 10.	

- Present Stimulus 10a and 10b.
- *Direct* the student to Stimulus 10a. *Communicate:* This is a mother dog and her young puppy. The puppy inherited characteristics from its parent.
- *Direct* the student to each answer choice in Stimulus 10b. *Communicate* the text in each answer choice.
- Communicate: Find what the puppy inherited from its parent.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds "fur color,"	-	mark A for question 10 and move to question 11.	
If the student does not find "fur color,"		 model the desired student action by finding "fur color" and <i>communicate</i> "Fur color is the characteristic the puppy inherited from its parent"; and replicate the initial presentation instructions. 	
After teacher modeling, if the student finds "fur color,"	-	mark B for question 10 and move to question 11.	
After teacher modeling, if the student does not find "fur color,"		mark C for question 10 and move to question 11.	

- Present Stimulus 11a and 11b.
- *Direct* the student to Stimulus 11a. *Communicate:* **Some characteristics are inherited from our parents. Some behaviors are learned from day-to-day experiences.**
- *Direct* the student to each answer choice in Stimulus 11b. *Communicate* the text in each answer choice.
- Communicate: Find the two characteristics that are inherited.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds "black hair and many freckles,"	-	mark A for question 11 and move to question 12.	
		provide one of these allowable teacher assists to the student:	
If the student does not find "black hair and many freckles,"	-	 Have the student identify physical features that can be inherited from parents. OR Have the student tell about physical characteristics that he or she inherited as well as a behavior he or she learned. 	
		Replicate the initial presentation instructions.	
After the selected teacher assistance, if the student finds "black hair and many freckles,"	-	mark B for question 11 and move to question 12.	
After the selected teacher assistance, if the student does not find "black hair and many freckles,"	-	mark C for question 11 and move to question 12.	

- *Present* Stimulus 12a and 12b. *Communicate:* **A student surveys some classmates about traits** inherited from their parents. He writes the students' responses in a chart.
- *Direct* the student to the chart in Stimulus 12a. *Communicate* the title and text.
- *Direct* the student to the last column. *Communicate:* This column is not filled in with information.
- *Direct* the student to each answer choice in Stimulus 12b. *Communicate* the text in each answer choice.
- Communicate: Find the question about inherited traits that should be added to the chart.

Stimulus 12a Investigation of Inherited Traits					
	Student	What color are your eyes?	Do you have dimples?	?	
	Anna	Blue	No		
	Bob	Brown	No		
	Cindy	Blue	Yes		
Stimulus 12b					
	Do you play the piano?	Do you ride a bicycle? * Do you have curly hair?			

Scoring Instructions				
Student Action		Test Administrator Action		
If the student finds "Do you have curly hair?"	-	mark A for question 12 and move to question 13.		
If the student does not find "Do you have curly hair?"	-	replicate the initial presentation instructions.		
After the teacher repeats the instructions, if the student finds "Do you have curly hair?"	-	mark B for question 12 and move to question 13.		
After the teacher repeats the instructions, if the student does not find "Do you have curly hair?"	-	mark C for question 12 and move to question 13.		

- Present Stimulus 13.
- *Direct* the student to Stimulus 13. *Communicate:* **The ocean is an environment where organisms live and interact with one another.**
- Communicate: Find the ocean.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds the ocean,	-	mark A for question 13 and move to question 14.	
If the student does not find the ocean,	-	 remove the stimulus; wait at least five seconds; and replicate the initial presentation instructions. 	
After the five-second wait time, if the student finds the ocean,	-	mark B for question 13 and move to question 14.	
After the five-second wait time, if the student does not find the ocean,		mark C for question 13 and move to question 14.	

- Present Stimulus 14a and 14b.
- *Direct* the student to Stimulus 14a. *Communicate:* The sun provides energy for plankton in the ocean to make their own food. The plankton are the base of this food chain.
- *Direct* the student to each answer choice in Stimulus 14b. *Communicate* the text in each answer choice.
- Communicate: Find the base of this food chain.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds the plankton in Stimulus 14b,	-	mark A for question 14 and move to question 15.	
If the student does not find the plankton in Stimulus 14b,		 model the desired student action by finding the plankton in Stimulus 14b and <i>communicate</i> "The plankton are the base of the food chain"; and replicate the initial presentation instructions. 	
After teacher modeling, if the student finds the plankton in Stimulus 14b,	-	mark B for question 14 and move to question 15.	
After teacher modeling, if the student does not find the plankton in Stimulus 14b,		mark C for question 14 and move to question 15.	

- Present Stimulus 15a and 15b.
- *Direct* the student to Stimulus 15a. *Communicate:* **The food chain shows the flow of energy between some organisms.**
- *Direct* the student to each organism in the food chain. *Communicate* the flow of the food chain.
- *Direct* the student to each answer choice in Stimulus 15b. *Communicate* the text in each answer choice.
- Communicate: Find the organism in this food chain that provides energy directly to the whale.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds the seal in Stimulus 15b,	-	mark A for question 15 and move to question 16.	
		provide one of these allowable teacher assists to the student:	
If the student does not find the seal in Stimulus 15b,		 Have the student identify what each animal eats. OR Highlight the arrows in the food chain. 	
		Replicate the initial presentation instructions.	
After the selected teacher assistance, if the student finds the seal in Stimulus 15b,	-	mark B for question 15 and move to question 16.	
After the selected teacher assistance, if the student does not find the seal in Stimulus 15b,	-	mark C for question 15 and move to question 16.	

- Present Stimulus 16a and 16b.
- *Direct* the student to the food chain in Stimulus 16a. *Communicate:* **The food chain shows the interdependence of some of the living organisms in an ocean.**
- *Direct* the student to each answer choice in Stimulus 16b. *Communicate* the text in each answer choice.
- Communicate: Find what will probably happen if all the salmon are removed from the ocean.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds "The number of seals will decrease,"	-	mark A for question 16 and move to question 17.	
If the student does not find "The number of seals will decrease,"	-	replicate the initial presentation instructions.	
After the teacher repeats the instructions, if the student finds "The number of seals will decrease,"	-	mark B for question 16 and move to question 17.	
After the teacher repeats the instructions, if the student does not find "The number of seals will decrease,"		mark C for question 16 and move to question 17.	

- Present Stimulus 17.
- *Direct* the student to Stimulus 17. *Communicate:* **The boys are hot and sweating after playing basketball.**
- Communicate: Find the boys who are sweating.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds the sweating boys,	-	mark A for question 17 and move to question 18.	
If the student does not find the sweating boys,	-	 remove the stimulus; wait at least five seconds; and replicate the initial presentation instructions. 	
After the five-second wait time, if the student finds the sweating boys,	-	mark B for question 17 and move to question 18.	
After the five-second wait time, if the student does not find the sweating boys,		mark C for question 17 and move to question 18.	

- Present Stimulus 18a and 18b.
- *Direct* the student to Stimulus 18a. *Communicate:* The boys are sweating because they are hot. The sweating helps cool their bodies.
- *Direct* the student to each answer choice in Stimulus 18b.
- Communicate: Find the girl who is sweating to cool her body.



Scoring Instructions			
Student Action		Test Administrator Action	
If the student finds the girl who is running and sweating,	-	mark A for question 18 and move to question 19.	
If the student does not find the girl who is running and sweating,		 model the desired student action by finding the girl who is sweating and <i>communicate</i> "The girl who is running is sweating, which cools her body"; and replicate the initial presentation instructions. 	
After teacher modeling, if the student finds the girl who is running and sweating,	-	mark B for question 18 and move to question 19.	
After teacher modeling, if the student does not find the girl who is running and sweating,		mark C for question 18 and move to question 19.	

- Present Stimulus 19.
- *Direct* the student to Stimulus 19. *Communicate:* The picture shows the human circulatory system. This system transports blood to and from body cells.
- Direct the student to each answer choice. Communicate the text in each answer choice.
- Communicate: Find the major organ of the human circulatory system.



Scoring Instructions				
Student Action		Test Administrator Action		
If the student finds "heart,"	-	mark A for question 19 and move to question 20.		
If the student does not find "heart,"	-	provide one of these allowable teacher assists to the student:		
		 Have the student identify the purpose of the muscles, the brain, and the heart. OR Trace the flow of the blood throughout the body. 		
		Replicate the initial presentation instructions.		
After the selected teacher assistance, if the student finds "heart,"	-	mark B for question 19 and move to question 20.		
After the selected teacher assistance, if the student does not find "heart,"	-	mark C for question 19 and move to question 20.		

- *Present* Stimulus 20a and 20b. *Communicate:* Here is a chart about heart rates for an average 16-year-old.
- *Direct* the student to Stimulus 20a. *Communicate:* This chart shows the heartbeats per minute for three different levels of exercise.
- Communicate the text in the chart.
- *Direct* the student to each answer choice in Stimulus 20b. *Communicate* the text in each answer choice.
- Communicate: Find the sentence that describes the impact of exercise on the circulatory system.

Stimulus 20a						
Heart Rates for an						
Average 16-Year-Old						
	🛓 Heart Rate at Rest	60-90 beats per minute				
	Heart Rate with Some Exercise	90-143 beats per minute				
	Heart Rate with a Lot of Exercise	143-175 beats per minute				
Stimulus 20b	*					
	Some A lot exercise exerc has no makes effect on heart your heart faster rate.	of No ise exercise s your improves beat your heart r. function.				

Scoring Instructions				
Student Action		Test Administrator Action		
If the student finds "A lot of exercise makes your heart beat faster,"	-	mark A for question 20.		
If the student does not find "A lot of exercise makes your heart beat faster,"	-	replicate the initial presentation instructions.		
After the teacher repeats the instructions, if the student finds "A lot of exercise makes your heart beat faster,"	-	mark B for question 20.		
After the teacher repeats the instructions, if the student does not find "A lot of exercise makes your heart beat faster,"	-	mark C for question 20.		

TEST ADMINISTRATOR MANUAL

STAAR ALTERNATE 2 Biology April 2016