MCAS Questions: Animal Studies

Reporting Category: Life Sciences
Standard: 1 - Classify plants and animals according to the physical characteristics that they share.
Standard: 6 - Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive, e.g., shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color.
Standard: 10 - Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.

1. (2013) One type of animal hatches from an egg, breathes through gills when it is young, and mainly lives on land as an adult. Into which group is this animal classified?

   A. amphibians

   B. birds

   C. mammals

   D. reptiles

2. (2012) Which of the following is a reason loggerhead turtles bury their eggs in holes that they dig on the beach?

   A. to keep the eggs covered with water

   B. to provide the eggs with nutrients

   C. to hide the eggs from predators

   D. to protect the eggs from sand

3. (2010) All the ponds in an area dried up during a drought. The population of which of the following animals that live in the area is most affected by the drought?

   A. deer

   B. frog

   C. hawk

   D. squirrel

4. (2011) Emperor penguins are specialized birds that eat fish. Emperor penguins have developed many special characteristics that help them survive in the ocean environment. The picture below shows two emperor penguins swimming in the ocean.



Which of the following characteristics most helps the emperor penguins survive in an ocean environment?

A. having very little sense of smell

B. having a very weak sense of taste

C. having large feathers that absorb water

D. having small wings that move like flippers

5. (2009) A tuna is an ocean fish that is well adapted to catching small, fast-moving prey. Which of the following adaptations most helps a tuna swim fast to catch its prey?

A. large fins

B. sharp teeth

C. small gills

D. tough scales

6. (2009) Sandra puts some pill bugs into an open box. She covers half the box with a piece of cardboard. She then places the box outside on a summer day, and all the pill bugs move under the cardboard.

   The pill bugs are most likely responding to which of the following?

   A. air pressure

   B. bright light

   C. wind

   D. fog

7. (2009) Which of the following graphs **best** shows how the height of a lion changes from birth through adulthood?

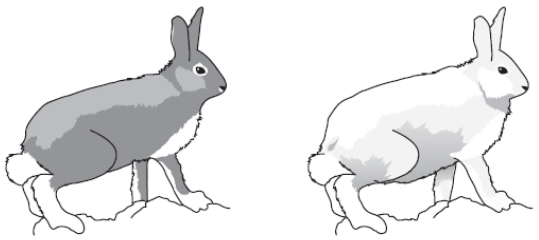
   A.

   B.

   C.

D.

8. (2008) The pictures below show the change in the fur of an arctic hare from summer to winter.



Fur in summer Fur in winter

Which of the following statements best describes how this change helps arctic hares?

A. It lowers their body temperature.

B. It protects their eyes from sunlight.

C. It helps them move on slippery ice.

D. It makes them less visible to predators.

9. (2008) Which of the following structures does a frog develop as it changes from a tadpole to an adult frog?

A. eyes

B. heart

C. lungs

D. tail

10. (2008) The chart below lists the organisms that Tamara sorted into two groups based on one physical characteristic.

Group 1	Group 2
alligator	bat
goldfish	deer
snake	mouse
tuna	rabbit

Which of the following physical characteristics did Tamara most likely use to sort the organisms into the two groups?

A. number of legs
B. size of the body
C. shape of the feet
D. type of body covering

11. (2007) Which of the following pictures shows a stage in a frog's life cycle when it breathes entirely through gills?

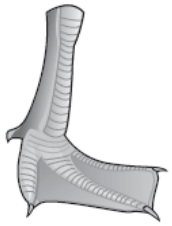
A.

B.

C.

D.

12. (2007) The picture below shows the foot of a certain species of bird.



In which of the following environments is this species best adapted for survival?

A. desert
B. freshwater lake
C. meadow
D. tropical rain forest

13. (2004) An earthworm was placed on top of a thick layer of moist topsoil in a pan. The pan was placed in a room with the lights on. How did the earthworm most likely respond to these conditions?

A. by burrowing under the soil
B. by crawling around in the pan
C. by staying where it was placed
D. by trying to crawl out of the pan

14. (2004) Which bird's foot below is best for grasping prey?

A. 

B. 

C. 

D. 

15. (2005) The pic shows a flower with a long slender bloom.



The size and shape of a bird's beak are related to the type of food that the bird eats. Which of the following beaks is suitable for drinking nectar located deep within flowers such as the one shown above?

A. 

B. 

C. 

D. 

16. (2004) Stages in the life cycle of a frog are shown below. In which stage can a frog live on land?

A. 

B. 

C. 

D. 

Open Response Questions

1. (2007) During the fall, changes in the environment in Massachusetts cause many animals to prepare for the coming winter season.

a. Describe two changes in the environment in Massachusetts during the fall that cause animals to prepare for the winter.

b. Identify one way that animals in Massachusetts prepare to survive the winter. Explain how this helps the animals to survive the winter.

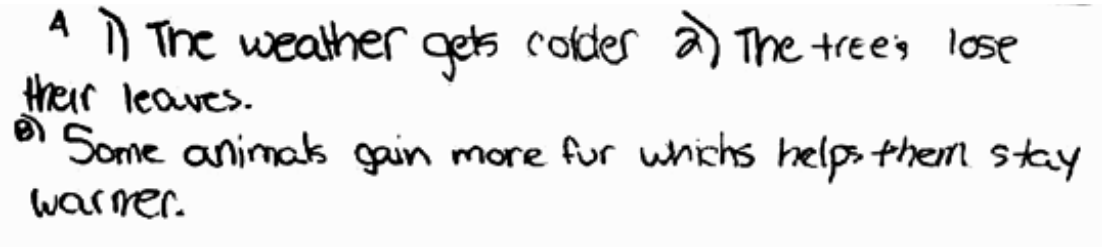
MCAS Questions: Animal Studies
Multiple Choice Answers

1. A
2. C
3. B
4. D
5. A
6. B
7. D
8. D
9. C
10. D
11. A
12. B
13. A
14. A
15. D
16. D

Open Response Answers

1. Massachusetts Fall and Winter

Score Point 4


A 1) The weather gets colder 2) The trees lose their leaves.
B) Some animals gain more fur which helps them stay warmer.

Score Point 4

(A) Two enviorment changes in the fall would probably be the coldness it starts out very warm and hot sometimes but when fall starts to come to an end the warmness leaves and the coldness comes. So I would say coldness would be one of them and the othere.... Also the ground and everywhere is covered. So if birds want to make a nest in the winter they cannot because there is snow everywhere and they know that from experese so they move west for the winter to another state that is hotter and they can make home in.

(B) Some animals stay for winter in Massachusetts so before winter comes they gather up food for them and there family's they store it everywhere in there mouthes behind trees there's alot of places they store it. This help's them so they don't have to go looking for food in the cold winter.

Score Point 3

a. One change is that it gets colder, and the animals need to grow thicker coats. And the second change is that they need to store nuts, berries, and food for Winter.

b. One way they prepare is by storing food. This helps the animal to survive because they would starve if they ran out of food in Winter.

Score Point 2

A) one chang is the cold Weather and lot of snow could make the m prepare For the winter.

B) the cold weather because the an. ma dont have alot of fur.

Score Point 1

Here are some reasons of describing two changes in the environment in Massachusetts.

A) The animals would have to grow fur, and they would have to find shelter.

B) They would have to hunt for food that way they wouldn't starve to death.

Those are some reasons of describing two changes in the environment in Massachusetts.

Score Point 0

a. they are alive in the winter and they get ready the month of june

b. they walk around