

Adapted for Survival Teacher Facilitation Notes

In General . . .

- Project the slide deck in edit mode—do not show it as a slideshow.
- Hide the speaker notes before projecting. (View/Show Speaker Notes)
- Hide the filmstrip to the left. (View/Hide Filmstrip.)
- Hide the toolbar. (Click on the up arrow at the right end of the tool bar.)
- Call on students to read the various content shown on slides.

Materials Needed:

Question #5

Noses & Beaks Spinner

Hooves & Feet Spinner

Large paper clip

Large index card, 1 per student

White construction paper, 1 sheet per student

Locomotion Spinner

Body Coverings Spinner

Crayons or colored pencils

Other Materials

Student Recording Sheets

Student Summative Evaluation

Pencils

Cardstock

Science notebooks

Advanced Preparations

- Duplicate copies of the recording sheets for each student.
- Duplicate copies of the 4 different spinners on cardstock for each group.

Question #1

- Ask students the following questions:
 - What are some different places that organisms live on the Earth?
 - Could a deer live in a forest? Why or why not?
 - Could a penguin survive in the desert? Why or why not?
 - Why do you think a cactus can survive in a desert?
 - Why do you think plants have different types of leaves, stems, and roots?
 - Why would animals have different body parts such as webbed feet versus hooves?
- Duplicate a recording sheet for each student or have them draw the table in their science notebooks. Direct the students to fill in the table as they read and discuss each animal.
- Complete the table about the functions of various plant structures as a class activity.

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Question #2

- For the opening slide in this section, have students list in their science notebooks two ways the birds are alike and two ways they are different. (You may limit their likenesses and differences to physical body structures, or you may allow behavioral and environmental differences, also. For example, the small bird eats insects, while the large bird eats fish.)
- Read and discuss the remainder of the slides in this section. (You may have students take notes in their science notebooks, if desired.)
- For the last two slides, have students read the questions, discuss pertinent information found in the questions, and choose what they think is the correct answer. Check and discuss as desired.

Question #3

- Read and discuss the slides in this section as desired.
- Have students complete the two recording sheets for this section. Discuss as desired.

Question #4

- Read and discuss the structures and functions of different species living in each type of environment. (You can have students take notes in their science notebooks, if desired.)
- Have students answer the questions about the cacti and the birds in their science notebooks. Discuss as desired.

Question #5

- Have students follow the directions to create a “fantastical animal”.
- Allow time for each student to display their picture to the class. Have them tell about their animal, including where it lives, how it meets its needs for survival, and what special structures it has for meeting its needs.
- Display the pictures with the name cards beside them in the classroom or a nearby hallway.

Evaluation

Have students complete the quiz independently.

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Name: KEY

Evaluation

1. Katydid are insects that live on plants. Their bodies have adapted to look like leaves. Which of the following best explains why katydids adapted this trait? Katydid with this trait were better able to-



- A** make their own food
- B** hibernate during cold winters
- C** blend into their environments
- D** communicate with other insects

2. A skunk's odor is unpleasant to other animals. A monarch butterfly's coloration warns birds of its bitter taste. These adaptations help the animals to-



- F** find water
- G** seek shelter
- H** catch prey
- J** avoid predators

3. Lemurs are animals that live high up in trees in tropical rainforests. Lemurs eat fruits and insects. Which of the following structures would most help lemurs to live in trees? Lemurs have-



- A** soft, gray fur that keeps them warm in the cold
- B** long, strong tails that curl around tree branches
- C** large, brown eyes to help them see well at night
- D** sharp teeth that can be used to tear apart food

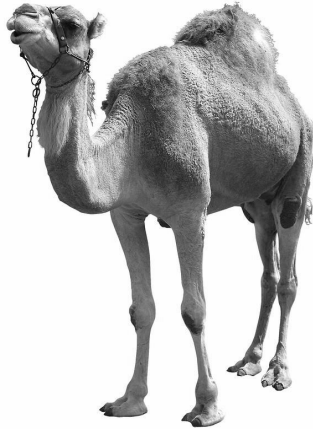
Adapted for Survival

Name: KEY

Evaluation

This question has two parts. First, answer Part A. Then answer Part B.

4. A group of organisms is shown below.



Camel



Barrel
Cactus



Gila Monster



Saguaro
Cactus

Part A: For which habitat are these organisms best suited?

- F** Polar/Tundra
- G** Tropical Rainforest
- H** Hot Desert
- J** Saltwater Ocean

5. Part B: Which statement best explains the answer to Part A?

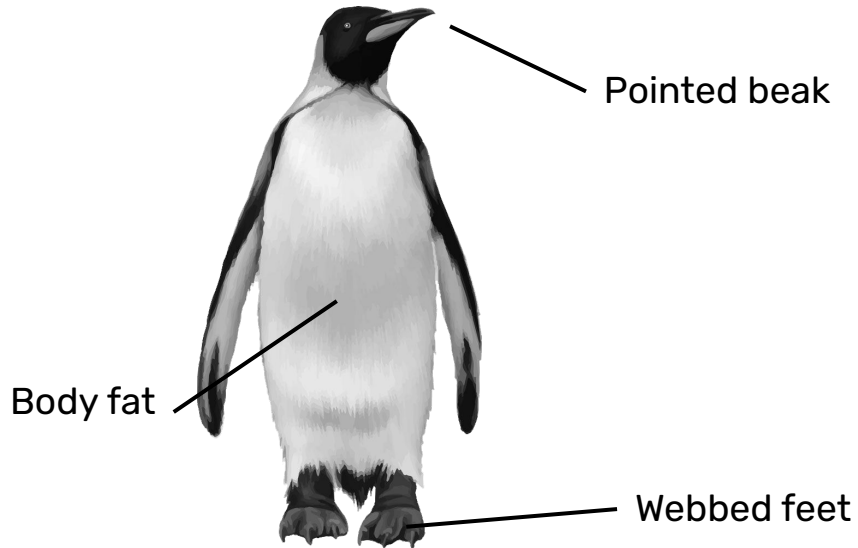
- A** All of the organisms are nocturnal, only coming out at night to hunt for food.
- B** Most organisms living in the desert are small and live in caves.
- C** These organisms have structures that allow them to store water and survive hot temperatures.
- D** Plants and animals in the desert are covered with thorns and spines to discourage predators from eating them.

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6. The diagram below shows a penguin. Penguins live near water in very cold environments. Three of the penguin's body structures are labeled.



Select one body structure labeled in the diagram. Explain how it helps the penguin survive in its cold environment.

Body structure: Answers will vary.

How does this body structure help the penguin survive in its environment?

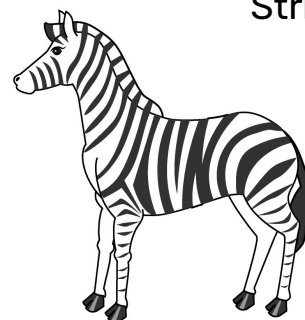
Answers will vary. Accept all reasonable answers students can justify.

7. Zebras and striped hyenas live in the African savanna. Which of the following structures help both animals survive in their environment.

- A Hard hooves
- B Camouflaging stripes
- C Small eyes
- D Longer front legs than back legs



Striped hyena



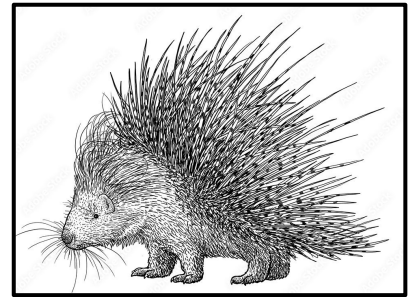
Zebra

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Evaluation

8. The illustration shows a porcupine. What structures help the porcupine survive in its environment? Mark all that apply.



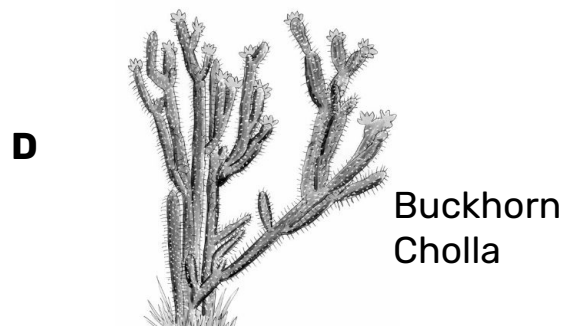
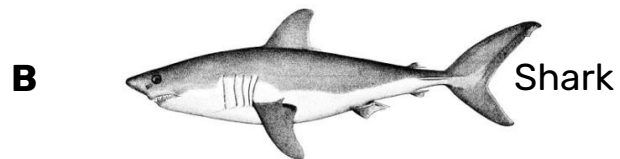
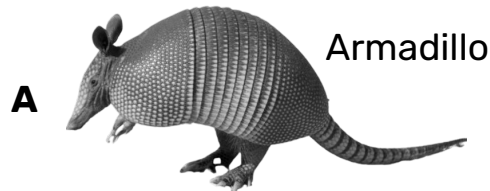
- F** Has sharp claws
- G** Has many predators
- H** Has long, strong teeth
- J** Has short legs and runs slowly
- K** Has pointed spines called quills

This question has two parts. First, answer Part A. Then answer Part B.

9. Part A: From the shape of its beak and the length of its legs, this bird is best adapted for living in which environment?



- F** Near a pond or marsh
 - G** On a prairie or grassland
 - H** In an evergreen forest
 - J** On the top of a mountain
10. Part B: Which of the following organisms would most likely live in the same environment? (Drawings are not to scale.)



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Name: _____

How do Different Structures and Functions of Organisms Help Them Survive in Their Environments?

Directions: Fill in the table below as you read about each organism.

Organism	Structure	Function
Eagle		
Elephant Ear Plant		
Giraffe		
Tiger		
Pelican		
Duck		
Camel		
Dolphin		
Bleeding Heart Plant		
Goldfish		
Whale		
Polar Bear		
Leaf insect		

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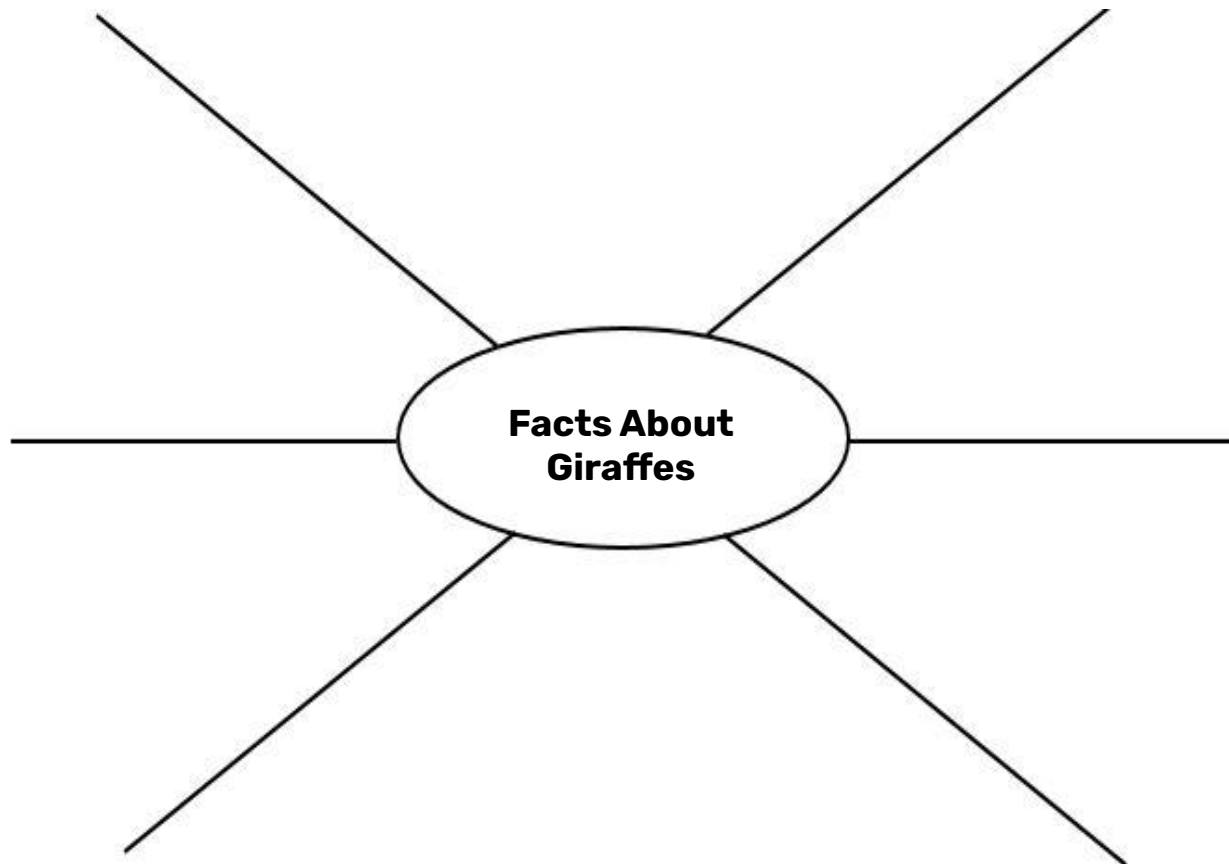
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Question #3: Sticking Their Necks Out!

Giraffes are unusual animals. They have many body structures that increase their ability to survive in their environments. Giraffes are known as the world's tallest animals—mainly because of their very long necks and their long front legs. Giraffes mainly eat the leaves and branches from the tops of thorny acacia trees. Giraffes have very long tongues that they can use to tear leaves off the branches of the tree and tough lips to protect them from spiny thorns. They also have fringed tails which they can flick to keep flies, mosquitoes, and other pests away. Finally, giraffes have a camouflaged coat. Their hairy skin is covered with patches of different sizes and colors to help them hide from predators found on the African savanna.



Directions: Read the paragraph above. Find at least 6 details about the topic of the paragraph. Add the details to the concept map below.

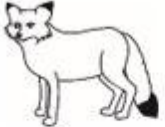






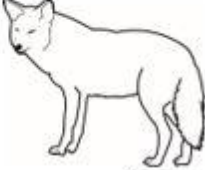


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Question #3: Structures and Functions

Directions: Eight animals are shown in the chart below. Draw a T-chart in the space below and sort these animals into two different groups. Both groups must contain at least three animals.

 fox	 mosquito	 butterfly	 armadillo
 black-footed ferret	 duck	 hawk	 coyote

Directions: Use the illustration and your knowledge of science to answer the question below.

Camels have long eyelashes. Think about where camels live and explain the function of this body structure.



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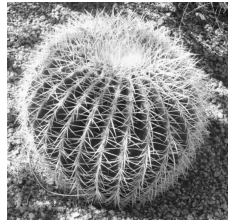
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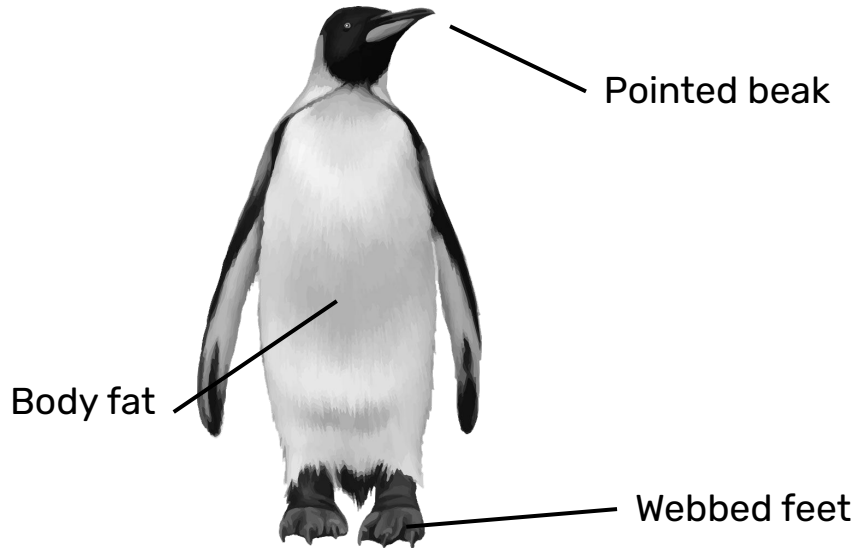
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Body structure: _____

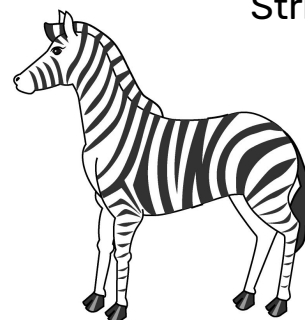
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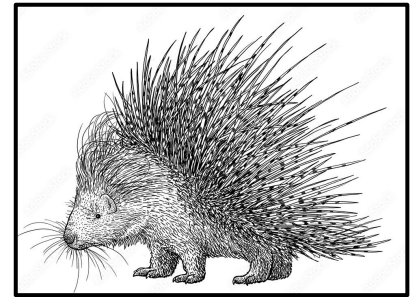
Zebra

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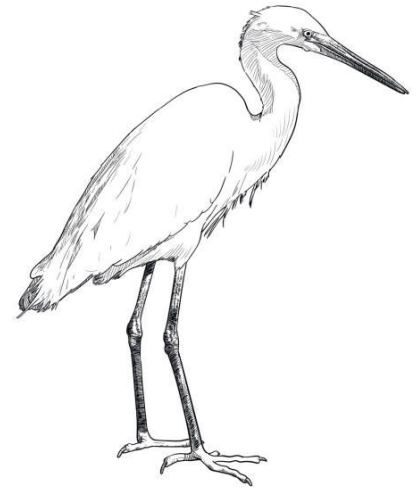
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