

## **Ecology: Ecosystem and Adaptation**

Name: \_\_\_\_\_

1. Define the following terms:  
Ecosystem

Ecology

Habitat

Community

Population

Species

Adaptation

Answer the following questions while watching an episode (Ice Worlds) from the BBC Planet Earth documentary series.

2. Throughout the program, they talk about different species that live on the two poles. List the species found on each of the two poles at different times as and when they are mentioned.

3. a) In spite of the extreme conditions that exist in the poles, it still functions as a habitat for some species of organisms. Describe some of the prevalent conditions in the poles.
- b) What is unique about what happens to these habitats when a seasonal change take place?
4. a) What the polar bear was doing for five months during winter is referred to as an adaptation. What is that particular adaptive behavior referred to as? What would be the benefit of such an adaptive behavior?
- b) In order for the species living in these two habitats to survive they must adapt to these conditions. List as many adaptive features of the polar bears as you can.
- c) The narrator says that one out of two cubs die during their first year. Suggest reasons for why that might be the case. Suggest how that might affect other members of the community if that weren't the case.

- d) According to the program, what is responsible for the reduction in the thickness of the ice caps in the arctic region? What does that mean for the polar bears?
5. a) What the sea birds do in response to the seasons in the arctic is also a kind of adaptation. What do they do?
- b) Suggest reasons for the similarity in the appearance of little auks and penguins.
- c) There is however a crucial difference between the two. What is that? Why is there that difference?
6. Arctic foxes undergo one quite obvious seasonal adaptation. Can you identify what it is?
7. Suggest a reason for the sighting of polar bears 60 miles away from the shore.
8. List the different kinds of adaptations discussed so far and define them.