

Natural Connections Quiz

Use information provided from the Natural Connections program to answer each question.

1. What is biodiversity and why is it important to protect it?
2. The Natural Connections program provided several examples of keystone species. Describe a keystone species and explain its impact on other animals.
3. What is the cause for the dramatic increase in extinction rates? How do these extinction rates compare to extinction patterns in the past? Why is this a concern?
4. Describe at least three of the five main problems that are leading to the destruction of biodiversity on our planet. (Hint: HI PPO)
5. Provide at least three examples of small changes that you can make to protect biodiversity.
6. What do both people and salmon need to survive? Name one or more examples of how people can help salmon.
7. Jerry Franklin said that all forests are “working forests.” What does he mean?



What did you learn from the 'Natural Connections' program?



Teacher Answer Guide

1. What is biodiversity and why is it important to protect it?

Biodiversity, or biological diversity, includes all living species and all the habitats in which they live. This diversity is essential to a thriving ecosystem. Biodiversity shows that everything is connected to everything else. Therefore, protecting biodiversity ensures that the health and future of all species is protected.

2. The Natural Connections program provided several examples of keystone species. Describe a keystone species and explain its impact on other animals.

Answers will vary. Keystone species are important because they are species that have major effects on many other species. Humans are the greatest keystone species, impacting many other species by their presence. Humans also impact other species through pollution, noise, and overcrowding. Other examples of keystone species include salmon, otters, starfish, and elephants.

3. What is the cause for the dramatic increase in extinction rates? How do these extinction rates compare to extinction patterns in the past? Why is this a concern?

Humans have caused the dramatic increase in extinction rates through habitat loss, pollution, and other environmental factors. This is a concern because the current rate of extinction exceeds the rate in which species are being replaced. While the natural extinction rate is a loss of one species each year per one million species, the current rate of extinction is almost 1,000 species each year per one million species while only one new species per million is created. We will never be able to completely recover from the loss of so many different species.

4. Describe at least three of the five main problems that are leading to the destruction of biodiversity on our planet. (Hint: HIPPO)

Students may respond with three or more responses from the following list:

H—Habitat Destruction is when the native plant and animal life of an area are destroyed.

I—Introduction of Exotic Species is when a species not native to an area has been introduced to a new area, often unintentionally. The exotic species will tend to multiply and crowd out native species.

P—Pollution can affect air, water, and soils.

P—Population Growth is having the effect of humans crowding out other species.

O—Over-consumption is a factor in the United States, which has less than five percent of the world's population, yet consumes more than 25 percent of the world's resources.

5. Provide at least three examples of small changes that you can make to protect biodiversity.

Answers will vary. Small changes in behavior that would protect diversity might include any of the following:

Taking shorter showers, recycling cans and paper, consuming less, using fewer pesticides, not pouring oil and waste down the storm drain, spending time in nature to gain respect for natural beauty and the interconnectedness of life...

6. What do both people and salmon need to survive? Name one or more examples of how people can help salmon.

Clean water is needed for the survival of both people and salmon. Examples of how people can help salmon may include any of the following:

Washing our cars at a carwash where soapy water is collected and treated; buying a low-flush toilet, watering the lawn only at night or not at all; using native, drought resistant landscaping for home, work or school; minimizing the use of fertilizer or pesticides in our lawns and gardens; buying organic products; not pouring oil down the drain or chemicals down the toilet.

7. Jerry Franklin said that all forests are “working forests.” What does he mean?

A “working forest” is a forest that provides things (timber, animal habitat, and clean water) and is doing work in the ecosystem. To foresters, “working” means timber production, but to Jerry Franklin, it means the processes that occur to clean the air, protect the soil and regulate the stream flow.