



# BIODIVERSITY

***“The truth is: the natural world is changing. And we are totally dependent on that world. It provides our food, water and air. It is the most precious thing we have, and we need to defend it.”***

Sir David Attenborough, British broadcaster and natural historian.

## 1. Biodiversity Discussion

1. What is biodiversity? Why is it important in nature?
2. Which are the most biodiverse countries/regions in the world? What makes them so diverse?
3. Why are tropical regions more biodiverse than other regions?
4. Where can you find the most biodiversity in your country? What kind of plants and animals can you find there?
5. How do humans benefit from biodiversity?
6. Which human activities are threatening animals and plants around the world? What about in the ocean?
7. How is biodiversity important for the economy? Which sectors rely on biodiversity?
8. How does our consumption contribute to biodiversity loss?

## 2. Biodiversity Vocabulary

- **ecosystem** (noun) – *an area where a variety of living organisms interact with each other.*
- **food chain** (noun) – *the sequence in which matter and energy are passed from one living organism to another in the form of food.*
- **invasive species** (noun) – *non-indigenous plants, animals or other organisms that disrupt the natural balance of another ecosystem.*
- **gene pool** (noun) – *the diversity of genes in an interbreeding community.*
- **habitat** (noun) – *the natural home of an animal, plant or other living organism.*
- **endangered species** (noun) – *a species threatened with extinction.*

Using the vocabulary words above, complete the following sentences (remember to use the correct form of the word, e.g. verb conjugation or plural noun):

1. Because of illegal trophy hunting, the white rhinoceros has become an **endangered species**.
2. Breeding from a large **gene pool** is one way animal species protect themselves from diseases.
3. Coral reefs provide an underwater **ecosystem** for thousands of species, including fish, crabs and urchins.
4. Lions can be found in their natural **habitat** of African grasslands and savannas.
5. The Asian carp, an **invasive species** from China, caused many problems when it was introduced into the United States due to the food they take away from native species and the rate at which they reproduce.
6. Without insects to eat, birds would not survive, and the entire **food chain** would collapse.

### Biodiversity vocabulary comprehension questions

1. How would you explain the ecosystem of a coral reef?
2. What effect would the loss of one species from the food chain have on other plants or animals?
3. Are there any invasive species in your country? How are invasive species usually introduced?
4. Why is a diverse gene pool important for plant and animal survival?
5. Which animals are under threat due to habitat destruction?
6. Can you think of any endangered species? What should be done to help them?

### 3. Video: The Importance of Biodiversity

You are going to watch a video by TED Ed called “Why is biodiversity so important?”

*Watch the video here: <https://yourenglishpal.com/blog/esl-conversation-lesson-plan-biodiversity/>*

While you watch the video, answer the following questions:

#### Multiple choice

1. What are Earth’s ecosystems vulnerable to?  
**a) collapse**                              b) exploitation                              c) the weather
2. What determines the ability of an ecosystem to survive in the face of change?  
*a) its location*                              **b) the variety of lifeforms**                              c) human activity
3. Why is the Amazon Rainforest considered one of the most biodiverse regions on Earth?  
*a) it is in the tropics*                              *b) it has a lot of water*                              **c) it has a lot of species**
4. How do liana vines help trees in the rainforest?  
*a) they provide nutrients*                              **b) they stop them falling over**                              *c) they help find sunlight*

#### Sentence completion

5. Animals such as tapirs eat the fruit of trees and spread their **seeds** in their droppings.
6. Each ecosystem in the Amazon is filled with **interconnected** species.
7. The biodiversity weave in the ecosystems of the Amazon is strengthened by **genetic** diversity within these species.
8. When a species goes extinct because of its weakened **gene pool**, the weave of its ecosystem starts to unravel.

#### Short answer

9. What do corals form interdependent relationships with? **Fungi and bacteria**
10. What do organisms depend on keystone organisms for? **Their survival**
11. What are some man-made problems that corals face? **Fishing practices, pollution, ocean acidification**
12. What can biodiversity provide humans to guarantee their survival? **An insurance policy / a safety net**

## 4. Biodiversity Conversation Questions

1. Why is it important to protect coral reefs in the ocean? What benefits do they give?
2. Why are fish stocks reducing? What effect will this have? Do you agree with fishing quotas to solve this problem?
3. How does climate change threaten biodiversity?
4. Which endangered species are hunted and why? Which exotic species are trafficked illegally? Why does this happen?
5. What do you think about hunting endangered species to use in alternative medicine? Should we respect these cultural practices, or should it be banned?
6. Why do governments appear reluctant to take action to protect biodiversity? What should they do to prevent further biodiversity losses?
7. What will the consequences be if the world becomes less biodiverse?
8. Do humans really care if there is a loss of biodiversity? If not, how can we change this attitude? What could you do to help preserve biodiversity?

## 5. Biodiversity Writing Task

Write about your opinion of biodiversity. Try to use some of the vocabulary you learned earlier in this lesson. In your answer, you could include some of the following topics:

- Why biodiversity is important for animals and humans.
- How climate change threatens biodiversity.
- The consequences for the planet if there is a loss of biodiversity.

### **Alternative exam practice question:**

Ecologists have shown that human activity is the single biggest contributor to biodiversity loss. Which human activities cause biodiversity loss. What should be done to prevent this loss of biodiversity?