

# Biodiversity



"the variety of life (plants, animals, fungi and micro-organisms) in an area, and the habitats in which they live"

## WHY TEACH ABOUT BIODIVERSITY?

Ecosystems are a complex web of different plants and animals that interact with each other. If we lose just one species, it has a domino effect on all the other species. Teaching can help this complex issue to become more tangible, allowing students to understand that biodiversity affects the food we eat, the materials we use, the medicines we take, and the air we breathe.

The destruction of forest ecosystems is responsible for 11% of all global greenhouse gas emissions

Around 75% of global food crops are reliant on animals and insects for pollination

Around 1.7 million species of animals, plants and fungi have been recorded but there may be up to 100 million in total.



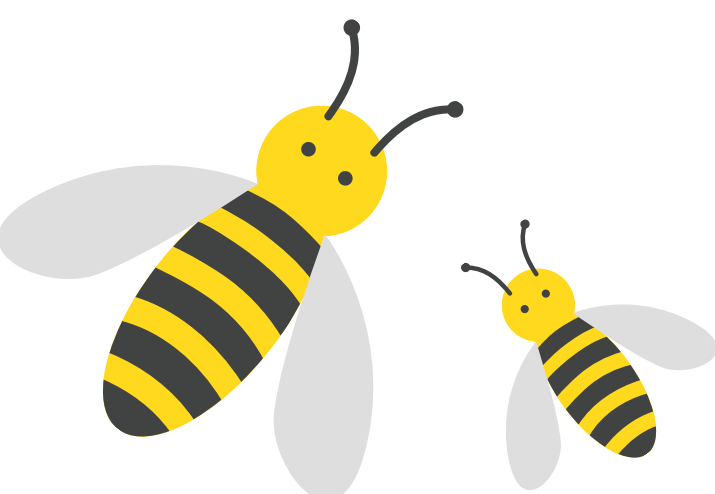
Curated by Create The Future with thanks to WWF, RSPB, Woodland Trust and more



# Forest collage



CLASSROOM TASK / HOMEWORK  
Estimated time: minimum 30 mins  
Age range: 7-9



## INSTRUCTIONS

1. Find pictures on the internet or in magazines and old calendars to create your own forest setting
2. Include as many types of tree, plant, animal and insect as you can. There's only one rule: you must be able to name every species you include!
3. Cut and stick your three favourite facts about forests onto your forest setting.



90% of the Earth's biodiversity is in our tropical rainforests

The UK is home to almost 50% of the world's bluebells

Around 300 million people live in forests around the world

There are hundreds of billions of trees on the Earth!

Tropical rainforests cover 10% of the world's surface

Forests cover around 30% of the Earth's surface

Trees cool the air and remove harmful pollutants from the air we breathe

More than a quarter of our medicines come from rainforest plants

# Endangered plants and animals



CLASSROOM / HOMEWORK

Estimated time: 30 - 60 minutes

Estimate age: 9-12

## INSTRUCTIONS

1. Read the summaries on the following page and learn about endangered species of plants and animals
2. Match each species to their place on the Conservation Scale below.
3. Can you name any more species that are endangered or even extinct?
4. EXTENSION: How many different types of threats can you identify? Choose one and write a persuasive letter to your local politician.

- EX

Extinct .....
- EW

Extinct in the wild .....
- CR

Critically endangered .....
- EN

Endangered .....
- VU

Vulnerable .....
- NT

Near threatened .....
- LC

Least concern .....



# Endangered animals: facts

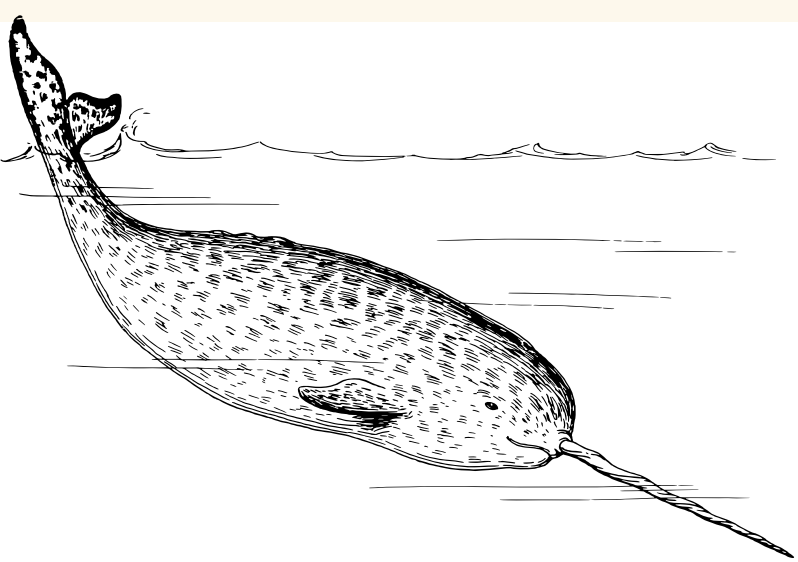


Orangutans spend most of the time in their trees. However, they are critically endangered due to **deforestation** and hunting by humans.

The West African Black Rhino used to live in the southeast region of Africa. It ate leafy plants. However, heavy **poaching** reduced their numbers and they are now extinct.

The Guam kingfisher is a type of kingfisher that now only exists in captive breeding programs. It went extinct in the wild when an **invasive species** of tree snake was introduced to their native habitat.

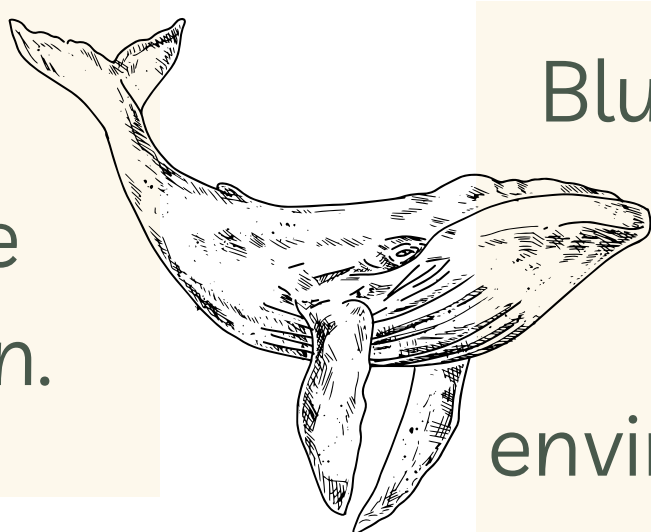
Narwhals live in Arctic waters. They have a long tusk a bit like a unicorn. They are near threatened due to ocean noise caused by large boats and also due to sea **pollution** and oil spills.



Giant pandas are good at climbing trees/ They are vulnerable due to the loss of their **habitats** and due to hunting by humans.



The Arctic Fox lives in the Arctic. Sometimes, the creatures they hunt are low in numbers and the fox struggles to find food. However, arctic foxes are currently of least concern.



Blue whales are the largest mammal on Earth. They are endangered because of changes to their environment and the loss of their food.



# What causes extinction?

## Glossary

- **Habitat:** The natural home of an animal or plant.
- **Pollution:** A harmful substance in the environment. For example, air pollution means there are harmful substances in the air..
- **Deforestation:** Cutting down trees, usually to grow crops or sell the wood.
- **Invasive species:** A species of plant or animal or other living being that is not native to a habitat or ecosystem, which may causes harm or negative affect other species in that habitat.
- **Ecosystem:** A community of living things that interact with each other in a specific environment.
- **Prey:** An animal that is hunted by another animal for food.
- **Poaching:** Illegal hunting of animals, either acgainst the law or on someone else's land.

## Write a persuasive letter

Write a letter to your local politician about an environmental threat such as pollution or deforestation. Use persuasive writing techniques to persuade the reader to do something or think in a certain way, to support your chosen cause.

### Try to include:

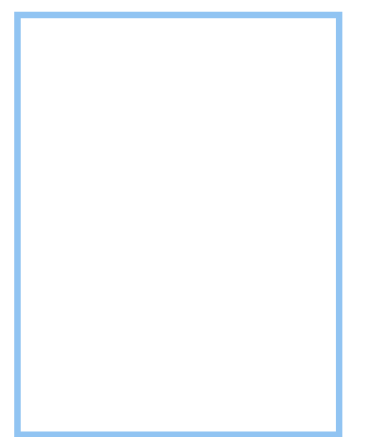
- A clear introduction, 1-3 main arguments (reasons to support your request), and a conclusion
- Evidence or facts to support your argument
- A short personal story that shows the reader why you care
- Emotive language - words that make the reader feel something
- Rhetorical questions
- An alternative opinion and why you disagree



# Postcard from the future

Using everything you have learnt about biodiversity in this pack, write a postcard to a grown up who might not know how to protect our vibrant planet. This could be a family friend, a grandparent, an aunt/uncle or even your local MP!

1. Cut out the template below.
2. On the blank side of the page, draw or stick your favourite plants and animals.
3. On the writing side, write a few sentences about what you hope the future will be like.
4. Now write the address of your chosen person and ask your grown-up helper to help add a stamp and put the postcard in the post.



Writing area for the postcard message, consisting of a vertical line on the left and five horizontal lines for writing.





# More resources

## **Our Planet documentary + resources**

A huge range of resources including screenings, a book and an app to accompany the Our Planet documentary

<https://www.ourplanet.com/en/schools-and-youth/>

## **Biodiversity in Schools**

Workshops, resources, projects and support for school nature gardens

<https://www.biodiversityinschools.com/>

## **WWF Teaching Toolkits**

Content and activity packs for a wide range of ages and topics

<https://www.worldwildlife.org/teaching-resources/toolkits?lang=english>

## **National Geographic Coral Reefs teaching pack**

A jam-packed site of videos, games and other activities to teach your students about coral reef ecosystems

<https://www.nationalgeographic.org/activity/coral-reefs-ecosystems-full-of-life/>

## **STEM biodiversity teaching materials**

Teach your students about food webs, adaptations and endangered species through these modules

<https://www.stem.org.uk/resources/community/collection/10992/biodiversity>

## **AMNH online games and stories**

Teaching remotely? No problem, send your students to learn online

<https://www.amnh.org/explore/ology/biodiversity#all>



Share your postcard creations with us on Twitter! @createfuture\_