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

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.

<table>
<thead>
<tr>
<th>Extinct (EX)</th>
<th>Extinct in the wild (EW)</th>
<th>Critically endangered (CR)</th>
<th>Endangered (EN)</th>
<th>Vulnerable (VU)</th>
<th>Near threatened (NT)</th>
<th>Least concern (LC)</th>
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CLASSROOM / HOMEWORK
Estimated time: 30 - 60 minutes
Estimate age: 9-12
Endangered animals: facts

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.

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.

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.

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

Blue whales are the largest mammal on Earth. They are endangered because of changes to their environment and the loss of their food.
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 cause 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 against 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
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.
Our Planet documentary + resources
A huge range of resources including screenings, a book and an app to accompany the Our Planet documentary

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

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_