

Animals at Eton College Collections

Teacher Instructions

Welcome!

Eton College Collections holds a remarkable collection of natural history items, many of which are on display in the Natural History Museum. These activities are based upon this collection, which is free to visit. Free primary education sessions may also be booked once school visits are possible. Please visit <https://collections.etoncollege.com/learning-engagement/schools/> for more information.

A Habitat is a Home

Discuss with your students:

- 1) What is a habitat?
 - a. A habitat is the place where where an organism lives. An organism is any living thing, plant or animal.
- 2) Different plants and animals live in different habitats.
 - a. For example, an arctic fox - arctic tundra
 - b. a red squirrel - woodland
 - c. a bulrush - habitat would be wetlands (yes, plants have habitats too!)
- 3) Animals and plants are adapted to the habitats in which they live.
 - a. Most animals are only adapted to live in one or two habitats.
 - i. For example, a otter could not live in a desert, an adder could not live for very long in the arctic.
 - b. Any examples of how they adapt?
 - i. Arctic hare - White fur for? *Camouflage* Small ears why? *Reduce heat loss*
 - c. BUT Certain animals, such as red foxes, are very adaptable – where can you find them? Woodland, field/farmland and even cities - mainly because they are not fussy eaters and have learned to live near humans
- 4) What makes a good habitat?
 - a. What do you need to survive?
 - i. food, water and shelter
 - b. A good habitat will provide all these things
- 5) How big is a habitat?
 - a. all sizes.
 - i. as large as a forest or an ocean or as small as a leaf.
 - b. In general, larger animals live in larger habitats.
 - i. A big animal will eat more food and drink more water than a small one and may have to roam over a larger area to find it. It will also need more shelter – a deer cannot hide under a leaf!

Activity: Identify habitats

- 1) Preparation:

- a. Print out enough habitat pages so there is one per group
 - b. Print out one set of animals per group
 - c. There are three animals per habitat – students have to decide which three live where and why? They can work on all of the cards together as a group, or if necessary the cards can be divided so every student only handles their own cards
- 2) Answers: (also on PowerPoint, section 1)
- a. Himalayan Mountains, Asia: snow leopard, tahr, marmot
 - b. Forest, Northern Europe: red squirrel, badger, great spotted woodpecker
 - c. Arctic: arctic fox, polar bear, snowy owl
 - d. Great Barrier Reef, Australia: sea cucumber, blacktop reef shark, lion fish
 - e. Kalahari Desert, southern Africa: white backed vulture, puff added, meerkat
 - f. River, England: pike, otter, heron
 - g. Maine Beach, North America: harbour seal, puffin, mussels
 - h. Amazon Rainforest, South America: glass frog, golden lion tamarin, green iguana
 - i. Serengeti Savannah, East Africa: agama lizard, lion, secretary bird
- 3) How did students know which animals belonged to which habitat? Prior knowledge? Something about their appearance?

Activity: Create your own habitat!

- 1) Use the worksheet if you want. This can be done simply with crayons, pencils or markers, but if you feel like making it a bigger project with specific mediums or cutting and sticking (tissue paper and cotton balls are fun too), go for it!
- 2) The students should illustrate their habitat and describe it (is it hot / cold / temperate? Wet / dry? Grassy / sandy / forest? Does it get clear seasons? Is it high up? Near the coast? And so on)
- 3) What sort of animals would live there and why? Can they give examples of the animals?

Food Chains

Discuss with your students:

- 1) Using the PowerPoint section 2, Slide 1: what does a plant eat?
 - a. Water, nutrients from the soil, sunlight
- 2) Slide 2: WHY do animals eat?
 - a. Survive, get energy, grow
- 3) Slide 3: What kinds of things do animals eat and what do we call animals that eat those things? Can you think of examples?
 - a. Plants only – herbivore
 - b. Meat only – carnivore
 - c. Everything – omnivore
- 4) What about the words predator and prey – what do these mean? Which of the animals on this slide is a predator and which prey?
- 5) So one thing eats another eats another – in a chain
- 6) Slide 4: Try an example of a simple food chain: put into order who eats what
- 7) Everything is a producer or a consumer
 - a. Given the words, what do you think a producer does?

- i. It produces – makes
 - b. What about a consumer?
 - i. It consumes - takes
- 8) In this case – who do you think is the producer and who is the consumer? (*Plant = producer, animals = consumers*)
- 9) Primary (first consumer in the chain, eats a producer) vs secondary consumer

Activity: Link the chains

- 1) On the worksheet are three simple chains found in the English countryside
- 2) Can your students link the three chains with arrows from producer → primary consumer → secondary consumer?
 - a. If you want to, use the info cards on the last PowerPoint slide / in the activity pack to give your students some background knowledge on the organisms
- 3) They need to think about:
 - a. What kind of organism is a producer versus a consumer?
 - b. What do you already know about each plant / animal, if anything?
 - i. What does each organism eat?
 - ii. What is their relative size?
 - iii. Where do they live?
 - c. Does their name give you any hints?
- 4) When you go over the answers, discuss:
 - a. What happens if you lose:
 - i. a producer? (For example, if there are no beech nuts, how will that affect squirrels and then stoats?)
 1. Primaries won't have any food and therefore die, which affects the food supply of secondary consumers
 - ii. A primary consumer?
 1. Secondary consumers suffer, producers will grow out of control
 - iii. A secondary?
 1. Primary consumer will grow out of control, decimate the producers (which eventually will lead to loss of the producer . . .)
 - b. Overall – is it probably better to eat one thing or lots of things? *Lots – so if one disappears the consumer has options*
- 5) Can they think of other chains? What about more complex ones?

Answers:

Hare's Foot Trefoil → Banded Snail → Song Thrush

Beech → Red Squirrel → Stoat

Red Fescue → Field Vole → Barn Owl