



Habitats:

**The Adventures of Terra the
Butterfly**

**Information for teachers
and group leaders**

What will the show involve?

Habitats: The Adventures of Terra the Butterfly is an entertaining 30 minute show where children discover a range of habitats and find out more about the animals adapted to living there. We also explore how climate change is making life more challenging for the animals living in these environments.

Is there anything I need to do to prepare the children before the visit?

No, not really. This show can be used as an introduction to a variety of topics, including living things and their habitats and the environment.

Risk assessment

- Please visit our website education.eureka.org.uk/resources to download both the general museum risk assessment and the one for your chosen session.
- We advise you to make a preview visit to carry out your own risk assessment for the overall visit.

Additional resources & information

Please find the following documents in this pack:

- Teacher's assessment chart - this outlines the aims and objectives of the show and their learning outcomes.

Evaluation

Eureka! Science + Discovery constantly aims to improve its programmes for school groups and feedback from adults and children is an essential part of this. We value all comments made and will always try our best to act upon them. You will be sent a link to an online survey following your visit and we'd be extremely grateful if you could complete and return as soon as possible after your visit.

Habitats Learning Outcomes

Aims and objectives – by the end of this science show children should have learned:

- The importance of habitats as providers of food, water and shelter for living things.
- The importance of preserving these habitats to maintain biodiversity.
- How animals adapt to survive in their unique habitats.
- The importance of adopting sustainable behaviours to protect the environment.
- Promote collaborative conservation work and encourage responsible environmental practices in their own communities.

Overview: Through a series of interactive activities, PowerPoint presentation and discussion, children will learn about animals and how they have adapted to their environments, and the impact of climate change on habitats.

Activities	Learning Outcomes
Introduction to Terra, our butterfly guide, and her forest home.	To understand that different animals live in different habitats.
Look at the parts of an insect through a microscope on the big screen.	A butterfly is an insect. Insects can be identified by making observations. Insects' bodies are divided into 3 parts, they have exoskeletons, and they have 6 legs.
Meet Hamill the Camel in the desert.	A camel is a mammal. Camels can go for long periods without needing to drink water because they have adapted to their habitat.
Meet Abigail the Crocodile.	A crocodile is a reptile. Reptiles have scales that act like solar panels so they can absorb heat from the sun to give them energy and regulate their temperature when they are underwater.
Meet Irvin the Penguin. Feathers demonstration.	A penguin is a bird. Birds have feathers that protect them from cold and water.
Changing habitats and the impact of the greenhouse effect. Greenhouse effect game-demonstration	An increase in greenhouse gases in the atmosphere is causing the planet to increase in temperature. This is causing climate change.
Meet Bruna the Tuna.	A tuna is a fish. Fish are cold blooded, and are being affected by the warming of the oceans. Fish are also affected by large volumes of plastic waste that end up in the oceans.
Meet Auster the Monster. Auster likes to eat natural resources and produces lots of 'gas'.	We can all have a positive impact on our environment by implementing some small changes in our everyday lives.

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Demonstrations used in the show

Everything you'll see in our science show can be repeated in the classroom. The following pages provide a basic list of resources needed and instructions for each demonstration used in the show.

Equipment needed:

- Bugs in resin
- Microscope

In describing the types of animals present in the show, we start with the insects. A key feature of these animals is that their body is divided into 3 parts, which due to their small nature, is not easy to see with the naked eye. This is why a microscope is used, which in turn allows the captured image to be projected. We then identify the 3 body parts of the insect and count its legs. If there are not 6, the animal does not qualify as an insect.

- 'Penguin' feathers – we use synthetic feathers
- Spray bottle filled with water

This demonstration requires a bunch of feathers and water spray to visualise the phenomenon of moisture insulation. The bundle of feathers should be in front of a volunteer's hand, so that they can confirm whether they can feel the water or not.

- Small balls (tennis ball size will do)

The aim of this demonstration is to explain how the greenhouse effect works in a fun and playful way. At least 3 volunteers will be required and then more people will be asked to join in. The first 3 volunteers will take on roles: Sun, Earth and a greenhouse gas. The Sun throws the balls towards the Earth; Earth bounces them back. The greenhouse gas manages to hold some of these balls close to the Earth, while others are able to escape. This creates a balanced situation, which is good for the atmosphere. Then more volunteers can join in, all taking on the role of greenhouse gases, analogous to the phenomenon of greenhouse gas accumulation. The more people take on the role of greenhouse gases, the fewer balls leave the earth, so the temperature is steadily rising.

Quiz: The Adventures of Terra

1.- What type of animal is Terra?

- A) Mammal
- B) Reptile
- C) Insect**

2.- Which part of an insect's body is NOT one of the three main parts?

- A) Thorax
- B) Stomach**
- C) Abdomen

- 3.- What is the primary role of butterflies and bees in the ecosystem?
A) Prey for other animals
B) Pollinators
C) Food for humans
- 4.- What type of animal is Hamill the Camel?
A) Insect
B) Mammal
C) Fish
- 5.- How do camels survive in the desert?
A) They store fat in their humps.
B) They drink large amounts of water daily.
C) They eat only sand.
- 6.- What characteristic distinguishes reptiles from mammals?
A) Warm-blooded
B) Have fur
C) Lay hard-shelled eggs
- 7.- What is a significant threat to Abigail the Crocodile's habitat?
A) Overpopulation of crocodiles
B) Temperature change and flooding
C) Lack of sunlight
- 8.- What helps penguins stay warm in their cold habitat?
A) Their ability to swim quickly
B) Their thick feathers
C) Their large size
- 9.- What is a major issue affecting Bruna the Tuna's habitat?
A) Plastic pollution in the ocean.
B) The water in the ocean is going to boil.
C) Excessive sunlight.
- 10.- What is the term for the long-term shift in Earth's weather patterns?
A) Weather change
B) Climate change
C) Seasonal change