

Build THE Change



ACTIVITY

DESIGN AN ANIMAL

You Will Need

- Art materials, such as paper, wooden sticks, pipe cleaners or clay
- LEGO or DUPLO bricks

An adaptation is the process by which an animal or plant changes to become better suited to its environment. Animals are adapted to ecosystems in different ways that help them to survive and thrive. For this activity, we want you to pick an ecosystem and design an animal that is adapted to it – be as creative as possible!

What to do:

STEP 1 Choose an ecosystem. It can be one of the types mentioned in the factfiles, or another you might know about. It could even be your back garden, your local green space, or your school grounds!

STEP 2 Think about your animal – it could be one that already lives there, or you could make one up! You will need to think about what it looks like and how it is adapted to live in the ecosystem you have chosen. We've given a few examples below!

Darwin's Finches – When Charles Darwin was exploring the Galapagos Islands, he noticed that finches (a type of bird) had different types of beaks, depending upon where they lived on the islands. This was because the finches' beaks had adapted over time to the food type in the area that they lived; so some finches had shorter, thicker beaks to be able to break nuts and seeds, while others had long, thinner beaks to be able to catch insects.

Arctic Fox – The fur of an Arctic fox changes over the seasons – white fur in the winter allows them to camouflage with the snowy landscape, and when the ice melts in the summer, the fox's fur becomes brown in appearance to match the rocky ground. Its fur is thick which keeps it warm in cold temperatures.



Kangaroo rats - Kangaroo rats survive in the hot deserts by taking in water through their food. They have incredible hearing due to their large ears, and can jump over two and a half metres into the air to avoid predators!

STEP 3 It's time to get creative and make your animal! You could draw your animal on some paper, taking care to label all of the amazing adaptations and how they help your creature to survive. Or, you could try to model your animal from clay, paper mache or LEGO bricks!

STEP 4 Now you've created your animal, think about how it might have to adapt to the impacts of climate change. This could include loss of habitat or food, rising sea levels or changes in temperature patterns. Some examples are given below:

Alaskan Wood Frogs - These frogs exist in very cold parts of the world. They survive winters by producing sugars called glucose, which allows parts of their bodies to freeze solid and thaw in the spring.



Bluebells - Bluebells sprout in the spring - their bulbs are very clever, and can detect when it is warm enough for them to grow. However, brief periods of warm weather in the early months of the year can trick the bluebells into thinking it is spring. Often, frosts still occur in the early months, and can kill off all of the bluebell sprouts. This has a knock on effect on the insects that depend on these flowers.

Table Corals - Coral reefs live in very specific sets of conditions, and need just the right amount of sunlight, temperature, water depth and salinity (or saltiness) to survive. However, tests have shown that the Table Corals are adapting genetically to be able to withstand higher levels of temperature - this will be important for coral reefs' survival as ocean temperatures increase.

Peppered Moth - Peppered moths used to be white with speckles all over, allowing them to blend in with the bark of some trees. However, during the industrial revolution, large amounts of pollution and soot from the air settled on the tree bark. Over time, the moths evolved to be black, allowing them to be better camouflaged.

Sockeye salmon - Each year, salmon migrate in the spring to their breeding locations. In recent years, sockeye salmon have been migrating earlier and earlier. The changing of the seasons is happening earlier each year, with the main impact being that it gets warmer much earlier than before.