

How Species Adapt

All plant and animal life constantly adapts to its environment, as a result of which, the environment itself continuously changes. Because of this, adaptation and environmental change is an ongoing process, which results in the evolution of species.

An extreme example of this is cacti. Cacti have learned over millions of years to survive in desert conditions by storing water in their fleshy stems, which gives many cacti their unusual, bulbous shape. Many have developed prickly spines on the surface to prevent desert animals from eating them in order to absorb their water.

Another species which has evolved to cope with extreme desert conditions is the camel, although the camel's distinctive hump, or pair of humps, has not evolved to hold water. The hump is in fact a large mound of fat on the camel's back which enables it to survive for up to two weeks in the desert without food, since food in the desert can be extremely scarce.

Extreme cold can be even more difficult for plants and animals than extreme heat. Penguins, however, have successfully adapted over time and are able to live in the harshest Antarctic conditions.

In order to withstand the cold, they have developed a thick layer of blubber under their skin and a dense layer of waterproof feathers. Penguins have also adapted their wings to become flippers, which means that, whilst they can no longer fly, they are extremely agile and fast in the water, enabling them to catch the small fish upon which they prey.

1. Which unusual features do cacti have, and why do they need them?

2. What are camels' humps for and why are they necessary?

3. Where do penguins live and how have they adapted to survive there?

4. Why can't penguins fly and why did they evolve in this way?

5. Why don't species just remain the same?
