

Adaptation





- All living things are adapted to their habitats.
- Adaptations are special features that help a living thing to survive in its habitat.



- Adaptations can be physical or behavioural.
- Physical adaptations are changes to a living thing's physical features, such as fur or eyesight.
- Behavioural adaptations are changes in the way living things behave, such as hibernation or being nocturnal.





- Adaptations come about through small, random changes in a living thing's DNA, which may bring about a change in its appearance or behaviour.
- These changes may not affect the living thing and not change its chance of survival.
- Sometimes the change can be unbeneficial, making it more difficult for the living thing to survive.
- Other times these changes can be beneficial, meaning that the living thing is more likely to survive.



- Living things with beneficial adaptations are more successful in their habitat. They reproduce, passing their DNA with the beneficial changes onto their offspring.
- Over a long period, the number of living things in the population with the beneficial changes increase, gradually taking over those without the change. In this way, adaptation leads to the evolution of a species.



European mole



Moles live underground and tunnel through soil.

Adaptations include:

- smooth, velvety fur
- tiny ears and eyes
- short powerful front limbs
- large paws and sharp claws
- excellent sense of smell
- eat earthworms



Pond skater



Pond skaters live on the surface of still or slow moving fresh water.

Adaptations include:

- water repellent feet
- sensitive hairs on their legs to feel vibrations from prey
- middle legs are used for rowing
- ability to jump



Common pitcher plant



Pitcher plants live in south-east Asia and feed on insects that fall into the jug-shaped leaf.

Adaptations include:

- leaf tips in the shape of a pitcher
- rim of the pitcher is slippery
- brightly-coloured leaves
- sweet, syrupy nectar
- liquid in the bottom of the pitcher



Emperor penguin



Emperor penguins live on Antarctica and feed on fish and krill.

Adaptations include:

- wings shaped like flippers
- powerful claws
- webbed feet
- huddle together in groups
- balance eggs on feet
- hold breath underwater for 22 minutes

