

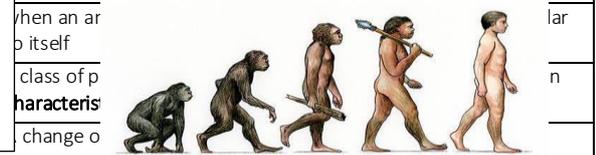
What should I already know?

- Which things are living and which are not.
- Identifying animals (e.g. amphibians, reptiles, birds, fish, mammals, invertebrates) and plants using classification keys.
- Animals that are carnivores, herbivores and omnivores.
- Animals have **offspring** which grow into adults.
- The basic needs of animals for **survival** (water, food, air).
- Some animals have skeletons for support, protection and movement.
- Food chains, food webs and the role of predators and prey.
- Features of habitats and the animals and plants that exist there (**biodiversity**).
- Examples of different **biomes**.
- The lifecycle of some animals and plants.
- Sometimes **environments** can change and this has an effect on the plants and animals that exist there.
- Living things **breed** to produce **offspring** which grow into adults. This is called **reproduction**.
- The role of Mary Anning in **palaeontology** and the discovery of **fossils**.

Vocabulary

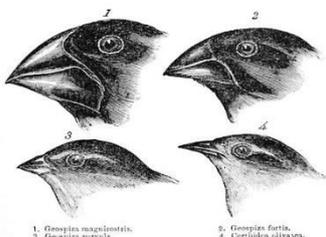
adaptation	a change in structure or function that improves the chance of survival for an animal or plant within a given environment
ancestor	an early type of animal or plant from which a later, usually dissimilar, type has evolved
biodiversity	a wide variety of plant and animal species living in their natural environment
biome	a large naturally occurring community of animals and plants occupying a major habitat
breeding	the process of producing plants or animals by reproduction
characteristics	the qualities or features that belong to them and make them recognisable
environment	all the circumstances, people, things, and events around them that influence their life
evolution	a process of change that takes place over many generations , during which species of animals, plants, or insects slowly change some of their physical characteristics
extinct	no longer has any living members, either in the world or in a particular place
fossil	the hard remains of a prehistoric animal or plant that are found inside a rock
generation	the act or process of bringing into being; through reproduction , especially of offspring
inherit	If you inherit a characteristic you are born with it, because your parents or ancestors also had it.
maladaptation	The failure to adapt properly to a new situation or environment
natural selection	a process by which species of animals and plants that are best adapted to their environment survive and reproduce , while those that are less well adapted die out
Offspring	A person's children or an animals young
palaeontology	the study of fossils as a guide to the history of life on Earth

Charles Darwin, an evolutionary scientist, studied different animal and plant species, which allowed him to see how adaptations could come about. His work on the finches was some of his most



What will I know by the end of this unit?

What is the theory of evolution?	<ul style="list-style-type: none"> • Evolution is a process of change that takes place over many generations, during which species of animals, plants, or insects slowly change some of their physical characteristics. • It occurs when there is competition to survive. This is called natural selection. • Difference within a species (for example between parents and offspring) can be caused by inheritance and mutations.
Create a fact file of an animal or plant identifying how it has adapted to its environment and how it has evolved to survive.	<ul style="list-style-type: none"> • Inheritance is when characteristics are passed on from generation to the next. • Mutations in characteristics are not inherited from the parents and appear as new characteristics.
Create a new planet and describe the environmental features. What animals and plants can live there? How have they adapted to survive?	<ul style="list-style-type: none"> • Evidence of evolution comes from fossils - when these are compared to living creatures from today, palaeontologists can compare similarities and differences. • Other evidence comes from living things - comparisons of some species may reveal common ancestors.
How do we know about evolution?	<ul style="list-style-type: none"> • Adaptation is when animals and plants have evolved so that they have adapted to survive in their environments. For example, polar bears have a thick layer of blubber under their fur to survive the cold, harsh environment of the Arctic while giraffes have long necks to reach the leaves on trees. • Some environments provide challenges yet some animals and plants have adapted to survive there. • Sometimes adaptations can be disadvantageous, one example of this can be the dodo, which became extinct as it
What is adaptation?	



1. Geospiza maculirostris. 2. Geospiza fortis. 3. Geospiza purpurea. 4. Certhidea olivacea.

	<p>lost its ability to fly through evolution. Flying was unnecessary for the dodo as it had lived for so many years without predators, until its native island became inhabited. When adaptations are more harmful than helpful, these are called maladaptations.</p>
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