

Boarshaw Community Primary School - Science

Year 6

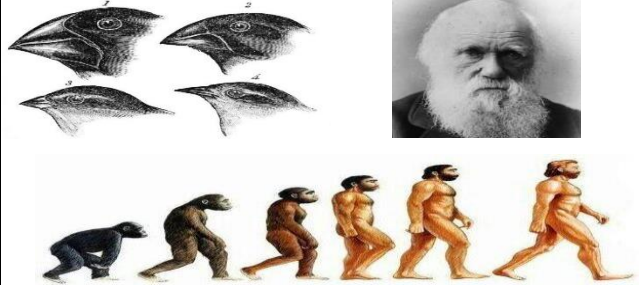
Science: Evolution and Inheritance

Previous knowledge: What should I already know?

- There are 7 characteristics of life (MRS GREN): movement, respiration, sensitivity, growth, reproduction, excretion and nutrition.
- Animals, including humans, need the right types and amount of nutrition.
- Recognise that environments can change and that this can sometimes pose dangers to living things.
- Understand the roles of producers, predators and prey in a food chain.
- Animals have **offspring** which grow into adults.
- The life cycle of some animals and plants
- How fossils are formed when things that were alive have been trapped in rock.

Key scientist: Charles Darwin

Charles Darwin studied different animal and plant species, which allowed him to see how **adaptations** could come about. He is famous for the book 'On the origin of species.'



Key facts / information

What is evolution?

- **Evolution** is a process of change that takes place over many **generations**. **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**.
- 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**.

What is adaptation?

- **Adaptation** is when animals and plants have **evolved** so that they have **adapted** to **survive** in their **environments**.
- Some **environments** are challenging, but animals and plants have **adapted** to **survive** there.
- Sometimes **adaptations** can be disadvantageous. For example: light v dark coloured wings in peppered moths. If an environment changes it can alter whether or not an adaptation is useful.

Key Knowledge: What I should know by the end of the unit?

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- Who Charles Darwin was and why his work is important.
- Understand that living things produce offspring of the same kind. Normally offspring vary and are not identical to their parents.
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Key vocabulary

adaptation a change that improves the chance of survival for an animal or plant

ancestor an early type of animal or plant from which a later type has evolved

biodiversity a wide variety of plant and animal species living in their natural environment

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, to enable a plant or animal to survive better in their environment.

extinct fossil no longer has any living members hard remains of a prehistoric animal or plant that are found inside a rock

inherit a characteristic you are born with because your parents or ancestors also had it

natural selection a process by which animals and plants are best adapted to their environment survive. Those that are less well adapted die out

offspring an animal's young (a person's child)

paleontology the study of fossils as a guide to the history of life on Earth

reproduction when an animal or plant produces one or more individuals similar to itself

species a class of plants or animals whose members have the same main characteristics

theory a formal idea that is intended to explain something

variation a change or slight difference

	Start of unit	End of unit
<p>Question 1: What is a fossil? How are fossils formed (made)?</p>		
<p>Question 2: What does the word evolution mean?</p>		
<p>Question 3: What is a habitat? What does a habitat need to have?</p>		
<p>Question 4: What do plants need to survive?</p>		
<p>Question 5: What 7 things can all living things do?</p>	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7. 	<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. 7.
<p>Question 6: What does offspring mean?</p>		
<p>Question 7: How has a polar bear adapted to suit its' environment?</p>		