



# Buglawton Primary School

*Be the Best We Can*

Topic: Evolution and inheritance

Subject: Science

Year: 6

Term: Spring

## What should I already know?

- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- Recognise that environments can change and that this can sometimes pose dangers to living things.

## What will I know and 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.
- Recognise that living things produce offspring of the same kind, but 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.

## What will I be able to do by the end of the unit?

- Can explain the process of evolution.
- Can give examples of how plants and animals are suited to an environment.
- Can give examples of how an animal or plant has evolved over time e.g. penguin, peppered moth
- Give examples of living things that lived millions of years ago and the fossil evidence we have to support this.
- Can give examples of fossil evidence that can be used to support the theory of evolution.
- Can identify characteristics that will make a plant or animal suited or not suited to a particular habitat.
- Can link the patterns seen in the model to real examples
- Can explain why the dominant colour of the peppered moth changed over a very short period of time

### Key Vocabulary

<b>offspring</b>	The young animal or plant that is produced by the reproduction of that species.
<b>inheritance</b>	This is when <b>characteristics</b> are passed on to <b>offspring</b> from their parents.
<b>variations</b>	The differences between individuals within a species.
<b>characteristics</b>	The distinguishing features or qualities that are specific to a species.
<b>adaptation</b>	An <b>adaptation</b> is a trait (or <b>characteristic</b> ) changing to increase a living thing's chances of surviving and reproducing.
<b>habitat</b>	Refers to a specific area or place in which particular animals and plants can live.
<b>environment</b>	An <b>environment</b> contains many <b>habitats</b> and includes areas where there are both living and non-living things.

To look at all the planning resources linked to the Evolution and Inheritance unit, [click here](#).



**Offspring**  
Animals and plants produce **offspring** that are similar but not identical to them. **Offspring** often look like their parents because features are passed on.

**Variation**  
In the same way that there is **variation** between parents and their **offspring**, you can see **variation** within any species, even plants.



### Adaptive Traits

**Characteristics** that are influenced by the **environment** the living things live in. These **adaptations** can develop as a result of many things, such as food and climate.



**Inherited Traits**  
Eye colour is an example of an **inherited trait**, but so are things like hair colour, the shape of your earlobes and whether or not you can smell certain flowers.



**Habitats**  
A good **habitat** should provide shelter, water, enough space and plenty of food.

**Environments**  
There are many types of **environment** around the world. Polar regions, deserts, rainforests, oceans, rivers, and grasslands are all **environments**.



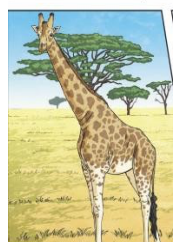
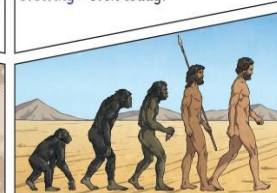
### Key Vocabulary

<b>evolution</b>	<b>Adaptation</b> over a very long time.
<b>natural selection</b>	The process where organisms that are better adapted to their <b>environment</b> tend to survive and produce more <b>offspring</b> .
<b>fossil</b>	The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.
<b>adaptive traits</b>	Genetic features that help a living thing to survive.
<b>inherited traits</b>	These are traits you get from your parents. Within a family, you will often see similar traits, e.g. curly hair.

Fossils are the preserved remains, or partial remains, of ancient animals and plants. **Fossils** let scientists know how plants and animals used to look millions of years ago. This is proof that living things have **evolved** over time.



Evolution is the gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously evolving - even today!



**Natural Selection**  
Fossils of giraffes from millions of years ago show that they used to have shorter necks. They have gradually **evolved** through **natural selection** to have longer necks so that they can reach the top leaves on taller trees.

Living Things	Habitat	Adaptive Traits
polar bear	arctic	Its white fur enables it to camouflage in the snow.
camel	desert	It has wide feet to make it easier to walk in the sand.
cactus	desert	It stores water in its stem.
toucan	rainforest	Its narrow tongue allows it to eat small fruit and insects.

## Agreed Real Life Outcome:

Design a new plant or animal to live in a particular habitat.