

# Bomere and the XI Towns Federation Knowledge Organiser—Evolution and Inheritance

Topic: Science—Evolution and Inheritance

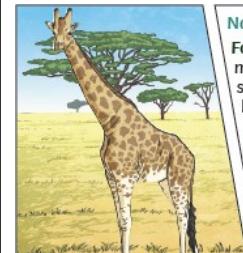
Class/Year Groups: Year 6

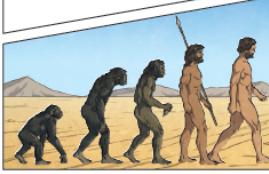
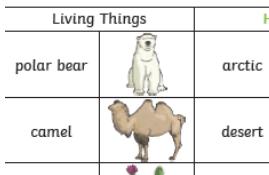
Term: Autumn

## What you already know?

Pupils will not have had any formal teaching about evolution prior to this unit but will have studied classification and will be aware of the variety of life on Earth. They will have learned about fossil formation in Year 3 and should know that fossils are the imprint of a living animal or plant in the rocks.

## What you will learn

	<b>Offspring</b> Animals and plants produce offspring that are similar but not identical to them. Offspring often look like their parents because features are passed on.		<b>Variation</b> In the same way that there is variation between parents and their offspring, you can see variation within any species, even plants.
	<b>Natural Selection</b> 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.		

<b>Adaptive Traits</b> 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.			<b>Inherited Traits</b> 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.
			
<b>Fossils</b> 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!			<b>Evolution</b> is the gradual process by which different kinds of living organisms have developed from earlier forms over millions of years. Scientists have proof that living things are continuously evolving - even today!
			
<b>Living Things</b>	<b>Habitat</b>	<b>Adaptive Traits</b>	
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.

## Vocabulary

<b>Evolution</b>	Adaptation over a very long time.
<b>Natural selection</b>	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.
<b>Fossil</b>	The remains or imprint of a prehistoric plant or animal embedded in rock and preserved.
<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.
<b>Off spring</b>	The young animal or plant that is produced by the reproduction of that species.
<b>Environment</b>	An environment contains many habitats and includes areas where there are both living and non living things.

## National Curriculum Objectives:

- 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.

