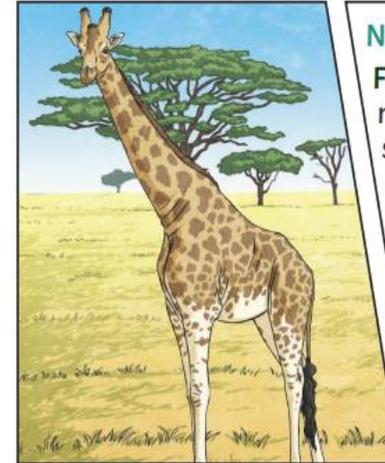
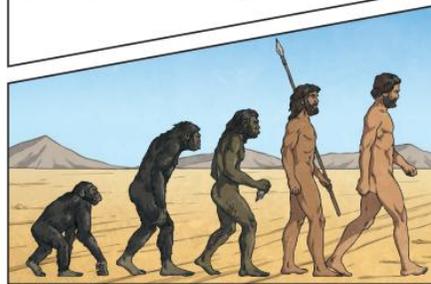


Year Six Knowledge Organiser – Evolution

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.

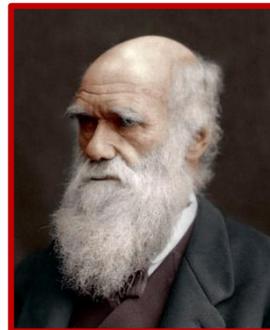
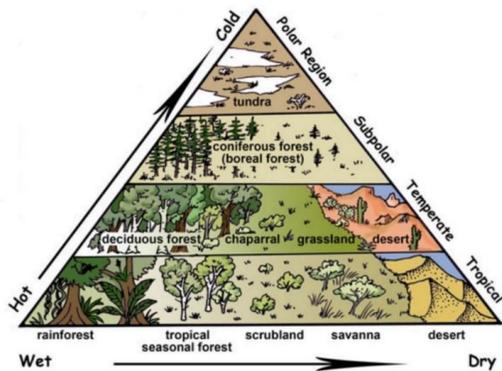
Evolution is the gradual process by which different kinds of living organism have developed from earlier forms over millions of years. Scientists have proof that living things are continuously **evolving** - even today!



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.

Different habitats:



Charles Darwin
(1809-1882)

Super Scientist!

Charles Darwin was an **English Naturalist** born on **February 12, 1809** in Shrewsbury, England. He is best known for developing a **theory of evolution** to explain biological change. He went on a voyage to study animals on the **Galapagos Islands**. On his voyage, Darwin studied **tortoises**. He noticed that each island had a different species of tortoise. He also studied **finches**. Each island had a **different species** of finch. He **wrote many books about his voyage**, *Journal of Researches*, *Coral Reefs*, *Volcanic Islands* and *Geographical Observations on South America*.

Year Six Knowledge Organiser – Evolution

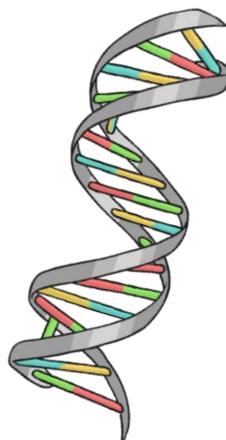
Offspring	The young animal or plant that is produced by the reproduction of that species.
Inheritance	This is when characteristics are passed onto offspring from their parents.
Variation	The natural differences between individuals within a species.
Characteristics	The distinguishing features or qualities that are specific to a species.
Adaptation	An adaptation is a trait (or characteristic) changing to increase a living thing's chances of surviving and reproducing.
Habitat	Refers to a specific area or place in which particular animals and plants can live.
Environment	An environment contains many habitats and includes areas where there are both living and non-living things.
Evolution	Adaptation over a very long time.
Natural Selection	The process where organisms that are better adapted to their environment tend to survive and produce more offspring.
Fossil	The remains or imprint of a prehistoric plant or animal, embedded in rock and preserved.
Adaptive Traits	Genetic features that help a living thing to survive.
Acquired	Referring to something that is learned after you are born – it is not naturally passed onto offspring.



Inheritance

When parents have **offspring**, they pass on their **physical traits**. The offspring inherit their parents' **qualities**. This means that most **offspring look like their parents** but they are not identical. The offspring may take characteristics from the father, the mother or a mixture of both.

Traits you can inherit	Traits you can't inherit
<ul style="list-style-type: none"> • eye/hair/skin colour • shape of nose • size of feet • height 	<ul style="list-style-type: none"> • a good singing voice • ability to play football • drawing skills



DNA

DNA is a molecule found inside the cells of every living thing. DNA gives our cells instructions on how to make copies of themselves, or reproduce. Over time, DNA can mutate and change.

We can study DNA to precisely work out how living things are related and how they evolved over time. It famously has a 'double helix' shape – similar to a corkscrew.