

# Science (Y6) – The Game of Survival

## Evolution and Inheritance

### Prior Knowledge

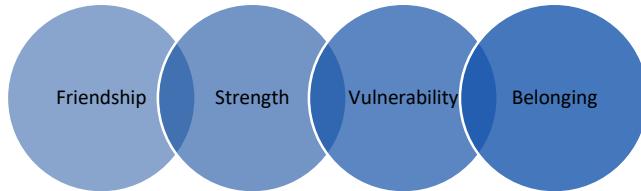
- Know that most living things live in habitats to which they are suited
- Notice that animals, including humans, have offspring which grow into adults
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock

### Key Knowledge

- Living things have changed over time
- Fossils give us evidence of what lived on Earth millions of years ago and provide evidence to support the theory of Evolution
- Plants and animals have characteristics that make them suited (adapted) to their environment
- If the environment changes rapidly, some variations of a species may not suit the new environment & will die
- If the environment changes slowly, animals and plants with variations that are best suited survive in greater numbers to reproduce and pass their characteristics onto their young
- Over a very long period of time, these characteristics may be so different to how they were originally that a new species is created. This is evolution.
- All living things have offspring of the same kind, as features in the offspring are inherited from the parents
- Due to reproduction, the offspring are not identical to their parents, they can vary from each other

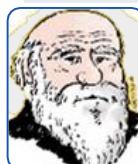
Living Things	Habitat		Adaptive Traits
polar bear		arctic	 Its white fur enables it to camouflage in the snow.
camel		desert	 It has wide feet to make it easier to walk in the sand.
cactus		desert	 It stores water in its stem.
toucan		rainforest	 Its narrow tongue allows it to eat small fruit and insects.

*How have living things adapted to survive over time?*



### Key Vocabulary

<b>Adaptation</b>	A process of change by which an organism or species becomes better suited to its environment.
<b>Characteristics</b>	A distinguishing trait, feature or quality.
<b>Environment</b>	An environment contains many habitats and includes areas where there are both living and non-living things.
<b>Evolution</b>	Adaptation over millions of years over many generations.
<b>Fossil</b>	The naturally preserved remains or traces of animals or plants that lived long ago embedded in rock.
<b>Genes</b>	A part of a cell in living things that controls its physical characteristics.
<b>Habitat</b>	A specific area in which particular animals or plants can live.
<b>Inheritance</b>	This is when characteristics are passed on to offspring from their parents.
<b>Natural Selection</b>	The process where organisms that are better adapted to their environment survive and reproduce and those that are not die out.
<b>Offspring</b>	The young animal or plant that is produced by the reproduction of that species.
<b>Species</b>	A group of closely related organisms that are very similar to each other. We are the human species.
<b>Variation</b>	A change or small difference.



**Charles Darwin**  
(1809 - 1882)

British scientist best known for his theory of Evolution. He studied finches on the Galapagos Islands.