Darwin's Discoveries – Year 6 – Spring 1

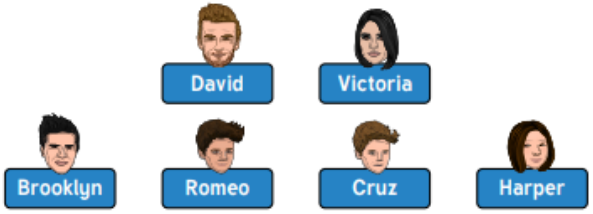
Super Scientist!

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.

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
• eye/hair/skin colour • shape of nose • size of feet • height	• a good singing voice • ability to play football • drawing skills

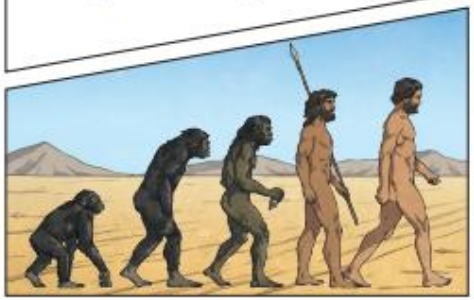


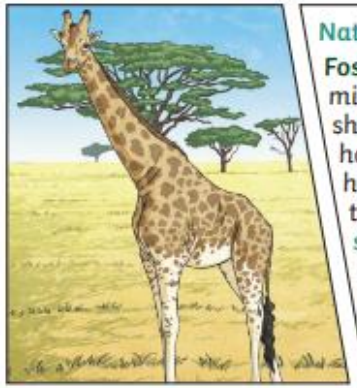
The Beckham Family

The children have inherited certain traits from their parents but they cannot inherit Victoria's singing ability or David's football skills.

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.

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Adaptation

Adaptation is when a plant or animal has changed in some way, over a long period of time, to be better suited to the **environment** in which they live.

Camels have **long eyelashes** to **protect** their eyes from the sand.

They also have **large, wide, flat feet** to help them **walk on the sand** without sinking.

Cacti grow in the desert which is hot and sandy.

- They have spines instead of leaves to protect them from being eaten by predators.
- They have a thick, waxy skin which helps reduce the amount of water they lose.
- They have shallow, widespread roots which allows fast absorption of water when it rains.
- They have large, thick stems which allow them to store water until they need it.

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.

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.