

Evolution



Charles Darwin observed that although individuals in a species shared similarities, they were not exact copies of each other; there were small differences or variations between them. He also noticed that everything in the natural world was in competition.

The winners were those that had characteristics which made them better adapted for survival. For example, they were stronger, faster, cleverer or more attractive than others in their species. These living things were more likely to reproduce and pass on their useful characteristics to their offspring.

Individuals that were poorly adapted were less likely to survive and their characteristics were not as likely to be inherited.

Over time, the characteristics that help survival become more common and a species gradually changes. Given enough time, these small changes can add up to the extent that a new species altogether can evolve.

Key Vocabulary

inheritance	A feature which passes from parents to offspring – e.g. eye colour.
variation	A change or slight difference within the same species.
adaptation	The process of change by which an organism or species becomes better suited to its environment.
evolution	The process by which different kinds of living organism are believed to have developed from earlier forms.
natural selection	The process whereby organisms better adapted to the environment tend to survive whilst those less suited die out.
fossils	The remains or impression of a prehistoric plant or animal embedded in rock and preserved.
DNA	A material that is present in living organisms and carry genetic information.
genes	A unit which is transferred from a parent to offspring and is held to determine some characteristic of the offspring.



FAMILY TREE

The diagram above shows an example of a family tree.

It starts at the top with the oldest generation and works down to the youngest at the bottom. Each level will **inherit** characteristics from the level above providing they are linked with a direct line.

Inherited Characteristics	Environmental Characteristics
Eye Colour Hair Colour Skin Tone Blood Group Freckles Colour Blindness Dominant Hand Dimples Earlobe Attachment Hairline Shape	Abilities (e.g. riding a bike) Favourite Colour Fashion Style Favourite Animal Pierced Ears

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