

Science – Evolution and Inheritance

How Have we Evolved?

Year 6

Spring 2

Working together to be the best that we can be

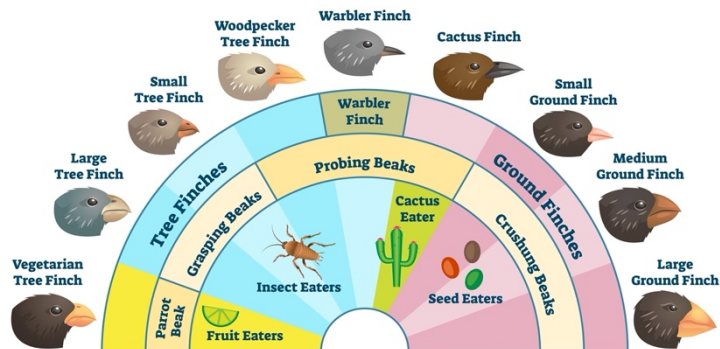
Golden Thread: Belonging

What is evolution and how do we know about it?

Scientists believe that life on Earth started with much simpler creatures than those that exist now. They believe that those creatures developed gradually over time, and went through a long series of changes. This process is known as evolution. By studying organisms that exist now and comparing them to prehistoric remains, scientists try to explain those changes as well as how and why living things have changed over time.

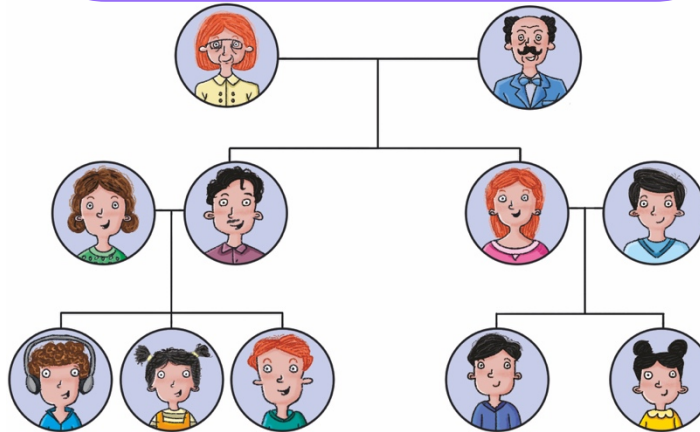


ADAPTIVE RADIATION



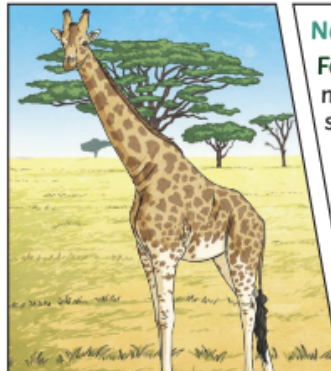
What is genetics?

The instructions that tell the body how to develop are called genes, and the study of genes is known as genetics. Genes are sections of a chemical called DNA (deoxyribonucleic acid), which is packed in bundles called chromosomes inside a control unit called the nucleus. Human cells have 46 chromosomes. You inherit them from your parents.



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.



Key Vocabulary

offspring	The young animal or plant that is produced by the reproduction of that species.
inheritance	This is when characteristics are passed on to offspring from their parents.
variations	The 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.
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.
inherited traits	These are traits you get from your parents. Within a family, you will often see similar traits, e.g. curly hair.

Did you know?

The theory of natural selection was explored by 19-century naturalist Charles Dawrin.

