Charles Darwin

Charles Darwin was an important scientist who studied nature.

Early Life

Charles was born in England in 1809. He had five brothers and sisters.

Charles's mother died when he was eight years old. His father was a doctor.



Becoming a Scientist

Charles went to University at Edinburgh and Cambridge. He became very interested in natural history.



Charles went on a journey on a ship called HMS Beagle in 1831. The voyage was to study creatures all around the world.

He visited the Galapagos islands. Charles noticed the birds on the islands had differences to help them survive in their different habitats.

Theory of Evolution

Charles published a book called 'On the Origin of Species' in 1859. He described an idea called natural selection. This meant that creatures change over a long period of time to survive. Charles noticed that creatures with the best features to survive in their environment would pass these onto their young. Charles's ideas were known as the theory of evolution.

Later Life

Charles and his wife had 10 children. He died in 1882.

Fun Fact

A type of frog from Chile is called Darwin's frog after he discovered it.



Charles

- To exit full screen, press

Scientist and Author

Darwin

1309 - 1332

Charles Darwin was a famous naturalist best known for his theory of evolution by natural selection.

When Darwin returned, he continued studying nature.

Early Life and Education

Charles Darwin was born in Shrewsbury, England.

He loved asking questions about the world. Darwin
began studying medicine but decided to train as a vicar
instead. In his spare time, he studied nature and animals.

In 1859, he published a book called 'On the Origin of Species'. It was about the plants and animals he had seen and his theory about how they had changed. This theory of evolution was based on the idea that over millions of years, living things had adapted to suit their own environments. He described an idea called natural selection, where creatures that could adapt were more likely to survive and pass these features on.

Adventure

After university, Darwin didn't want to be a vicar yet. He became a ship's naturalist on HMS Beagle in 1831. Over five years, they sailed to South America and then the Galápagos. He collected information about rocks, plants, animals and fossils, including some that nobody had seen before.

His book was a bestseller and challenged previous theories. In 'The Descent of Man', Darwin suggested that humans may have evolved from another species. Scientists today generally agree that humans share a common ancestor with apes like chimpanzees and gorillas.

Studies of DNA have since provided scientific evidence for Darwin's theories.

Fascinating Fact

Darwin later introduced 'survival of the fittest' as another term for 'natural selection'.

The Galápagos Islands



Physical and Human Features

The Galápagos Islands include 13 larger islands and many smaller islands and rocks. The islands are made from volcanoes and volcanic rock. Several of the volcanoes are still active. The highest peak on the Galápagos is Wolf Volcano, which last erupted in 2022.

The Wall of Tears is a 25 metre high wall built by prisoners on Isabela island in the 1940s and 1950s.

Food

Fish and seafood are staples of many traditional meals on the Galápagos. These include arroz marinero (a rice dish with mussels and clams). Encebollado is a fish soup often served at breakfast with plantain chips. Red and green lobsters with spines are popular to eat cooked in coconut milk.

Wildlife and Vegetation

The Galápagos Islands are a UNESCO world heritage site and the surrounding sea is a marine nature reserve. Thousands of species of plants and animals live on the Galápagos and many of these are endemic. This means they are only found here and nowhere else in the world. Some endemic animals include giant Galápagos tortoises, marine iguanas, Galápagos fur seals and Darwin's finches.

Many different mangrove trees, ferns and cactuses grow here. Scalesia is an endemic group of various species of trees and shrubs. Some have yellow, daisy-like flowers.



The Galápagos Islands are a province of Ecuador.

They used to be called the Enchanted Isles.

Quick Facts

Capital City: Puerto Baquerizo Moreno

Population: Approximately 30,000 (2024)

Official Language: Spanish

Climate: Tropical and

temperate

Evolution and Inheritance Year 6

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.			

To exit full screen, press **Esc**



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 san

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.





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.

Inherited Traits



Habitats

A good habitat should provide shelter, water, enough space and plenty of food.



There are many types of environments.







Evolution and Inheritance Year 6

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.		
inherited traits	These are traits you get from you parents. Within a family, you will often see similar traits, e.g curly hair.		

No. State of the s

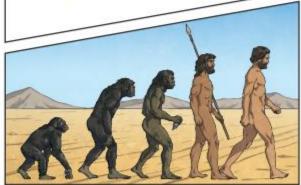
Natural Selection

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.

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!



Living Things		Hai	bitat	Adaptive Traits
polar bear		arctic		Its white fur enables it to camouflage in the snow.
camel	S.	desert	-	It has wide feet to make it easier to walk in the sand.
cactus	W	desert	149	It stores water in its stem.
toucan	7	rainforest		Its narrow tongue allows it to eat small fruit and insects.