



Sticky Knowledge

Darwin's Delights



Who was Charles Darwin?
Charles Darwin (1809-1882) was an expert in natural history, who put forward a theory of evolution by natural selection. He went on a famous sea voyage in 1831 on a ship called the HMS Beagle and visited many places around the world, collecting animal and plant samples. The observations he made led him to his theory of evolution.



Route of the HMS Beagle
On 27th December 1831, HMS Beagle set sail from Plymouth Harbour, carrying a crew of 73 men, including Charles Darwin. It travelled across the Atlantic Ocean to South America where it stopped frequently, allowing Darwin to collect specimens.



Theory of Natural Selection
After studying the animals from the Galapagos, Darwin came up with the idea that animals evolve due to having the characteristics that make them best suited to their environment. He called this 'survival of the fittest'.

Mary Anning
Mary Anning (1799-1847) was an English fossil collector. She lived in Lyme Regis in Dorset in an area known as the Jurassic Coast. Mary spent much of her time collecting fossils along the beach. Although she had very little formal education, she worked hard and taught herself about fossils. She became an expert at removing fossilised bones from rock to reconstruct skeletons.



Darwin's Finches
Darwin's Finches are a group of 17 land birds, which are known for adapting their beak size and shape, over time, to suit the diet available in their environment.

Charles Darwin is born in Shrewsbury England.

Darwin's voyage on HMS Beagle to South America and the Galapagos Islands.

Publication of Darwin's book, 'The Origin of the Species.'

Charles Darwin dies in Downe, England.

1809

1831-1836

1859

1882

Timeline

ART

SCIENCE

HISTORY

GEOGRAPHY

CONNECTED CURRICULUM

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What are fossils?



Fossils are the remains or traces of living organisms from the past, often preserved in sedimentary rock. They provide vital evidence of Earth's history and the evolution of life.

Key Fossil Types: Ammonite, Crinoid, Trilobite, fish, ferns, coprolites.



What is inheritance?

Inheritance is the process by which traits and characteristics are passed from parents to their offspring through genes. Genes are segments of DNA that determine specific traits such as eye colour, height, and certain abilities.

There are two types of characteristics:

Inherited Characteristics: Traits you receive from your parents (e.g., hair colour, skin tone, and height).

Environmental Characteristics: Traits that are influenced by the environment (e.g., language spoken, hobbies, and skills).



What are the Galapagos Islands?

The volcanic Galapagos islands lie 1000km off the West coast of Ecuador in South America. There are 13 main islands, with several smaller islands and rocks. Darwin noticed that many species of animals were found on these islands.

Galapagos Inhabitants - FUN FACTS:

Marine Iguana- Eat algae which means they can adapt to Marine life.

Blue-Footed Booby- Excellent divers, they can plunge into the sea from great heights to catch fish.

Giant Tortoise- Herbivores with the ability to eat tough plants and cacti found in their environment.

Galapagos Penguin- Their dense feathers provide insulation in cooler waters.

Frigatebird- Their wingspan can reach up to 2.3 meters, allowing them to glide long distances without flapping.



Key Vocabulary

Vocabulary	Definition
adaptation	A genetically inherited trait that improves an organism's chances of surviving and reproducing.
endangered	A species at risk of becoming extinct.
evolution	The changes and developments that animals, plants and other organisms go through over a very long period of time due to changes taking place in their DNA.
extinct	An animal or plant species that has died out and is no longer present in the world population.
habitat	The place where an animal, plant or any other type of organism lives and reproduces.
inheritance	The transfer of traits, such as eye colour, from parents to their offspring.
natural selection	A process, processed by Charles Darwin, which causes gradual evolutionary changes in a species. Organisms that are better adapted to their habitat reproduce more successfully, increasing the numbers in population with the beneficial adaptation. Other traits which are not beneficial are lost.
species	A group of organisms that have common characteristics and can breed.
variation	The difference in certain traits such as hair colour. Variation is caused by slight differences in each individual's DNA.

