HOLY FAMILY CATHOLIC PRIMARY SCHOOL

Science – Year 6 – Fossils

science

1. To recognise how fossils have changed over time and how does this contribute to the theory of evolution.	2.To explore a variety of fossils and enquire about what scientists have learnt from fossils.	3. To research and answer enquiry questions about Mary Anning and her discovery of fossils in England.

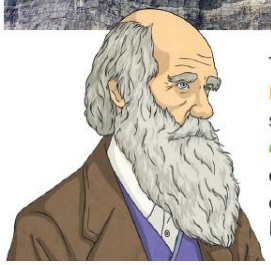
Fossils	The imprint in a rock of a living thing that lived a long time ago	 Fossils
Rock	A natural material found on or underneath the Earth's crust	 Rock
Decompose	A process of a material breaking down	 Decompose
Skeleton	A framework of bones	 Skeleton
Charles Darwin	An English naturalist and biologist who proposed a theory of how new species came to exist	 Charles Darwin
Evolution	The process where descendants develop different characteristics to their ancestors, creating new species	 Evolution
Palaeontologist	A scientist who studies fossils	 Palaeontologist
Mary Anning	An English palaeontologist who discovered and studied fossils	

Why Are Fossils Useful?

Fossils are important because they offer valuable scientific evidence and insights into prehistoric organisms. They may tell us what they looked like, what they ate and how they **evolved** over time.

Layers of Rock

As new sediment settles, it compresses lower layers into **rock** over time. Older **fossils** are usually found in lower layers, while newer ones are higher.



These **fossils** support **Charles Darwin**'s theory that organisms share common ancestors and **evolve** over time. Comparing older and newer **fossils** reveals characteristics passed down to living descendants.

Fossil Records

Fossil records provide evidence for how species have changed over time.

trilobite fossil

horseshoe crab

Mary Anning

Mary Anning was born in 1799 and lived in Lyme Regis, Dorset. She made incredible fossil discoveries, including:

- a 5-metre-long Ichthyosaur (1810–1811)
- the first complete **fossilised skeleton** of a Plesiosaur (1823)
- a **fossilised** Pterosaur (1828)
- a **fossilised** Squaloraja (1829)

The Stages of Fossilisation

1. A living thing dies.
2. The remains are covered by sediment.
3. Over time, pressure causes layers of sediment to compact.
4. As the organism decomposes, it leaves a space in the rock. Over time, minerals fill this space.
5. Over millions of years, layers of rock become exposed and reveal the fossil.

ossilisation takes a long time to omplete (sometimes millions of ears).