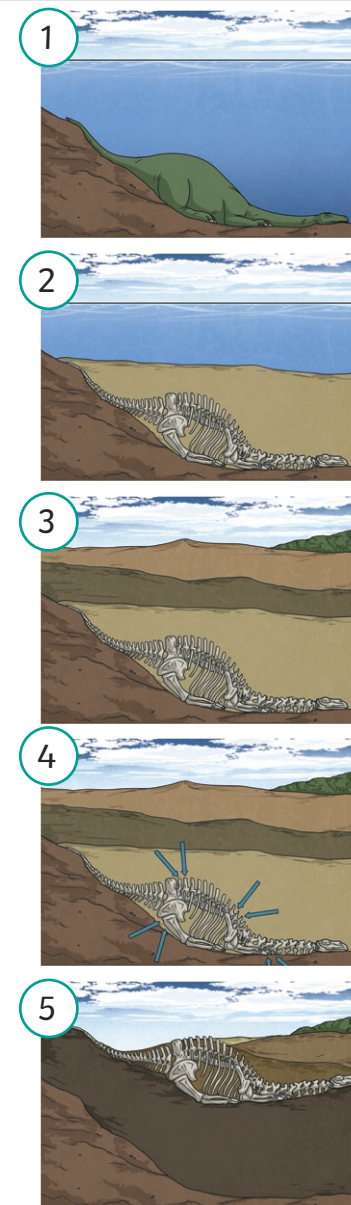


Key Vocabulary Overview	
fossil	the preserved remains or traces of a prehistoric living thing
rock	a natural material made up of minerals
decompose	describes the breakdown of organic material
skeleton	structures of bones or other substances that can provide protection, movement and support
Charles Darwin	a British naturalist most famous for his theory of evolution and studies of how new species come to exist
evolution	the gradual change in organisms over time, which can result in the creation of new species
palaeontologist	a scientist who studies fossils
Mary Anning	an English palaeontologist who discovered and studied many fossils

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.

Fossilisation takes a long time to complete (sometimes millions of years).

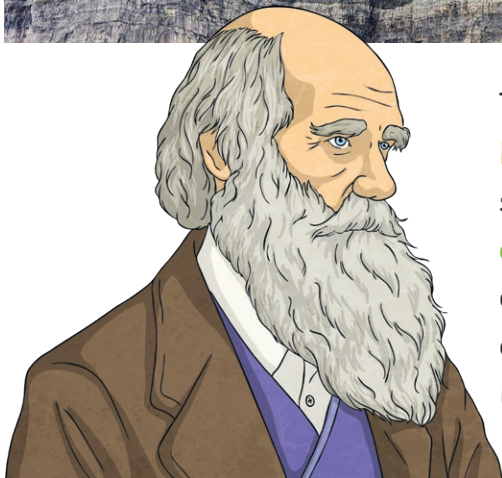


Why Are Fossils Useful?

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)

