

What is a Fossil?



A fossil is a special rock that holds the remains of creatures that lived millions of years ago.

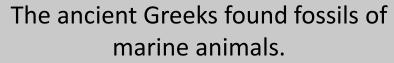
History of Ideas About Fossils

Fossils have been found by people throughout history.

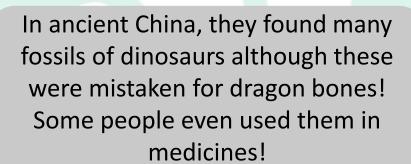
It's only in the last two hundred years that we have begun to understand what these fossils really are and how they were formed.



Here are some ideas from the past.



They realised that this meant some land used to be under water.







How Were Fossils Created?



When a sea creature died a long time ago its shell or body laid at the bottom of the sea. Over time it got covered in lots of layers of mud. This protected it and stopped it from crumbling into tiny pieces.

How Were Fossils Created?



After many years, the mud became hard and turned into rock. As this happened, the shell or body became a fossil. It is the harder parts of the animals which are now found fossilised, such as their shells, bones and teeth.

Palaeontology and Palaeontologists

Key words to learn!

Palaeontology

(pay-lee-on-tolo-jee)

Palaeontologist

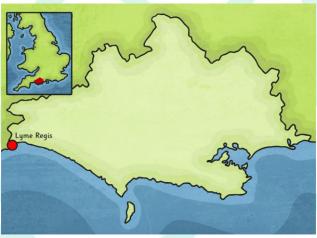
(pay-lee-on-tolo-jist)

What is a palaeontologist?

What do they do?

Who Was Mary Anning?





Mary Anning was a famous fossil hunter. She was born in 1799 and lived in Lyme Regis by the sea.

Every day, her father took her and her brother to the beach, where they spent hours looking for fossils.

They didn't know that the things they found were the fossils of sea creatures from millions of years ago.

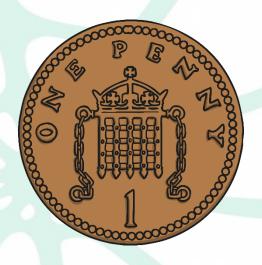
However, Mary knew that they were something special!

Who Was Mary Anning?



Mary was good at spotting fossils in rocks, and her father taught her how to get the fossils out of the rock by gently and carefully chipping the rock away from the fossil using a hammer and chisel.

This took a very long time because if the fossil was hit with the chisel, it could be damaged.



Mary and her family had little money, so Mary and her brother Joseph would take the fossils they had removed from the rocks and sell them.

People were amazed by the mysterious shapes of the fossils, thinking they were beautiful and from a mysterious world.



One day a lady called Elizabeth Philpot, who was a fossil expert, saw Mary's fossils and was very interested in them.

She showed Mary some fossils she had collected and gave her books to read. The books taught Mary that scientists thought that the objects she had found were actually creatures that had lived a very long time ago.

Sadly, Mary's father died when she was 12 years old. With no mother or father to look after them, Mary and her brother were now even poorer.

Mary visited the beach every day, looking for fossils to sell.

The area where she collected her fossils is now known as the Jurassic Coast, due to the large number of pre-historic sea creatures found in that area.

She didn't chance upon the fossils. She realised that they were found by the cliffs.

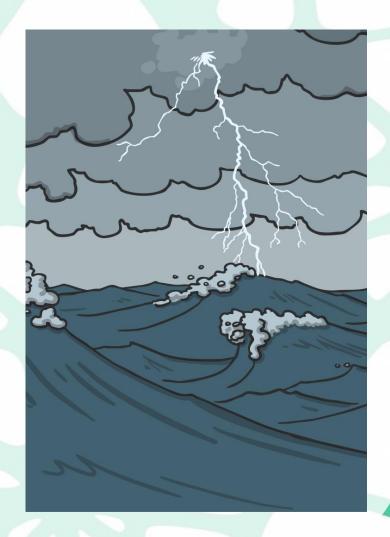
These cliffs are made from layers of sedimentary rock which formed over 200 million years ago!



Mary knew to search after a storm, as this eroded the rocks. This made it easier to hunt for fossils as they became more exposed.

In addition, she knew that she would have to search soon after the storm so that the smaller fossils were not washed away to the sea.

She was most definitely an expert fossil hunter!





Whilst walking along the beach one day, Mary made an amazing discovery.

She had found a giant fossil that no one had ever seen before! It was the skull of a giant creature that looked like a crocodile. She had found the first complete fossil of an **Ichthyosaurus** or 'fish-lizard'.

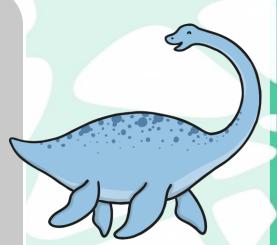
Scientists from London were amazed by the discovery. Mary was paid for the fossil and her family no longer needed to worry about money.

Mary carried on finding more fossils that the world had never seen before. She found a 'giant sea reptile' or **Plesiosaur**, a **Pterosaur**, and a **prehistoric fish**.

Many scientists visited Mary and she was able to help them understand more about the fossils she had found.

Many of the fossils were taken to London and put on display in the British Museum. Mary opened a small shop where she sold fossils, stones and shells.

She died in 1847, but is still remembered as one of the greatest fossil hunters ever to have lived.





Palaeontologist

Would you want to be a palaeontologist?

Why? Why not?

