## **Mary Anning**

**NaG** - pupils might find out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution.

## A Biography of Mary Anning



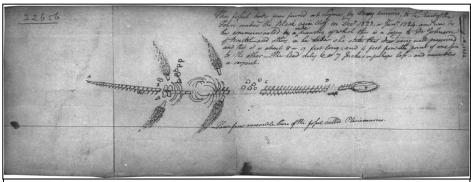
Mary Anning was born on 21st May 1799 in the seaside town of Lyme Regis in Dorset, on the south coast of England. Mary received little education, was not trained as a scientist, but grew up to be a palaeontologist whose findings helped change the way scientists thought about the world.

Mary came from a poor family; her father, Richard, was a carpenter. She was one of nine children, but only she and her brother Joseph survived. As a baby, Mary had a narrow escape. The family was at a local fair in

a thunderstorm; lightning struck and a woman holding Mary and two other people were killed, but Mary was unhurt.

When Mary was young, her father would take the family for walks along the beach and cliffs at Lyme Regis. It was around this time that richer people began to take seaside holidays. Richard Anning had a stall on the sea front and he would sell shells and rocks they had found on their walks to visitors to the town. In 1810, when Mary was 11 years old, tragedy struck the family again. Mary's father died after falling from a cliff. As the family had very little money, Mary had to spend most days looking for shells to sell.

Mary taught herself to read and write and learnt about **geology** and **anatomy** from the books she read. Most days Mary went **fossil** hunting with her dog, Tray. In 1811, she and her brother found a 2m long skull sticking out of a cliff face. Mary used her hammer to chip away at the rock and uncovered a skeleton of what looked like a crocodile. However she had found the first complete fossil **Ichthyosaurus**. Other major finds she made were a fossilised **Plesiosaurus** in 1824 and a very rare **Dimorphodon Macronyx** (a **pterosaur**) in 1828.



Pen and ink sketch of a Plesiosaurus by Mary Anning, 1824



Mary was supported by rich friends who sold her fossils on her behalf. The money earned enabled her to open a shop in selling shells. Lyme Regis, stones and fossils. Mary became famous and scientists wrote her letters and went to visit her. Her fossils had helped scientists understand how life began. Fossils had been found before Mary Anning discovered them, but no-one knew what they were.



Fossilised Plesiosaurus, discovered by Mary Anning in 1824. Now held in the Natural History Museum, London.

Although Mary Anning came from a poor background, she managed to gain the respect of the male scientific community, who gave her recognition in her lifetime. In 1838 she was given an annual pension, raised by members of the British Association for the Advancement of Science and the Geological Society of London. Mary helped scientists realise that fossils give us clues to what life was like millions of years ago. They came to understand that prehistoric animals were not the same as living animals and that as some animals died out, different animals took their place. This process of evolution was explained by Charles Darwin and Alfred Wallace, not long after Mary died in 1847. Her death was recorded by the Geological Society (which did not admit women until 1904) and her life commemorated by a stained glass window in St Michael's Parish church in Lyme Regis.



Mary Anning not only found and described hundreds of fossilised creatures, she also discovered **Coprolites** (above). She realised that these were fossils of dinosaur poo! Her interest was drawn to these objects, as she often found them within the ribs or near the pelvis of the ichthyosaur fossils she discovered. She also noticed that when the coprolites were broken open, they sometimes contained fossilized fish bones, scales, and the bones of smaller ichthyosaurs. Mary believed them to be fossilised **faeces**, containing the remains of the creatures the dinosaur had eaten millions of years before.