



MARY ANNING KNOWLEDGE ORGANISER



Overview

Marie Anning (1799-1847) was a fossil collector, dealer and paleontologist.

She found many fossils in the fossil beds along the seacliffs near her home at Lyme Regis in the county of Dorset, on the south coast of the United Kingdom.

She always took her dog, Tray, with her when finding fossils. Amongst her findings were the first full ichthyosaur skeleton and the first two plesiosaur skeletons ever found.





As a working class woman, Anning was not always given the credit that she deserved for her discoveries by the rich gentlemen who dominated her field of study.

However, her work played an important role in improving understanding of biology and paleontology in the 19th Century.

A painting of Mary Anning from around 1842.



Answers to Important Questions and Key Vocabulary

What creatures were the fossils formed from?		-Ichthyosaurs were a large marine reptile that lived at the time of the dinosaurs. They were particularly common throughout the late Triassic and early Jurassic periods. They ranged from around 1 to 16 metres in length, and most were carnivores! -The plesiosaur was another large ocean predator. They lived in oceans worldwide. They had a broad body and four long limbs that had evolved into flippers. They had a long neck and razor-sharp teeth.	Key Vocabulary Scientist Paleontologist Biology Fossil Jurassic Era Triassic Era Dinosaur Marine Lizard Carnivore Geology Skeleton Lyme Regis Dorset
Was her job dangerous?		-Yes, at times. The cliffs that she mined were often unstable, and the tide could be powerful. -Her dog, Tray, was her constant companion on fossil searches, but one day was killed by a landslide from one of the cliffs. It was only inches from killing her too. She had to learn how to avoid these hazards.	
Where is the Jurassic Coast?		-The Jurassic Coast stretches 95 miles, from Dorset to Devon, along the southern English coast. -It is now a UNESCO World Heritage Site, which means it is protected in lots of ways. It was given this status because of the scientific value of the rocks and fossils in the area. Lyme Regis, where Anning found fossils, is on the centre-west of the Jurassic Coast.	
Why isn't Mary Anning more well-known?		-Unfortunately, Mary Anning lived at a time in which women were not given equal rights to men. Also, people from poor backgrounds were looked down upon by richer people. Because she was a woman, Mary was not allowed to join many of the elite scientific groups, even though she had earned her place. Many people at the time discredited her work.	

Times in Her Life

Early Career



-When she was a young girl, Mary's father taught her how to carefully extract 'curiosities' from rocks.

-Her family were very poor, and so her and her brother Joseph would sell what they found. One of Mary's best customers gave her a book, teaching her that the curiosities were fossils.

Poverty and Tragedy



-Mary's family were not at all wealthy when she was growing up. Their house was small and was at risk of flooding.

-Seven of her siblings (one an elder sister also named Mary) died in infancy.

Career in Fossils

-After her father's death, Mary continued to find fossils. She found so many pre-historic fossils along the coast near Lyme Regis that the area is now known as the Jurassic Coast.

-Many famous scientists came to visit Mary because she was so knowledgeable about her finds.

-She sold many of her finds for an income, but in 1838 began to receive an income from the British Association of Science and Geological Society of London in order to continue her work. This study of fossils became known as paleontology.



The Ichthyosaur Fossil

-Perhaps Mary Anning's most famous finding was the first full skeleton of an ichthyosaur. It was so well preserved that the fish bones and scales from its last meal can still be seen inside its ribcage! William Buckland drew Anning's ichthyosaur skeleton in his book Geology and Mineralogy in 1836.



Later Life



-Mary Anning became widely respected by many members of the scientific community for her work.

-When she died in 1847, the Geological Society highlighted her contribution to science.

Top 10 Facts!

1. Although she was well-respected, Anning was not invited to The Geological Society – women were not allowed until 1904.
2. A woman holding Anning as a toddler was killed by lightning. Anning survived.
3. She often went fossil hunting after a storm, as it caused parts of the cliffs to fall off.
4. Anning is thought to have inspired the tongue twister: 'she sells sea shells on the sea shore.'
5. Lyme Regis was underwater millions of years ago, which is why there are so many fossils.
6. Anning only left Lyme Regis once in her lifetime – to visit London.
7. Anning's Ichthyosaurus has been on display at the Natural History Museum in London.
8. Anning didn't attend school, as it was too expensive at the time for her family to afford.
9. Charles Darwin is thought to have found her work useful in publishing his work on evolution.
10. There is a stained-glass window memorial of Anning at the St Michael's Paris church in Lyme Regis.

Mary Anning Timeline

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| 1799: Mary Anning is born in Lyme Regis. | 1805-1810: Mary's father shows her how to mine for fossils. | 1810: Mary's father dies. | 1810-11: Mary and her brother Joseph find the world's first ichthyosaur skeleton. | 1823: Mary discovers a plesiosaurus skeleton. | 1828: She discovers the first pterosaurs outside of Germany. | 1837: Queen Victoria comes to the throne. | 1847: She dies at the age of 47, from breast cancer. | 1878: A fossilized coral is named after Mary. | 2010: Named in list of 10 British Women who most influenced science. |
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