



I ❤️ STEM Taught®

Mary Anning

The Princess of Palaeontology

It is 1814, and on the stony cliffs of Lyme Regis, England, 15-year-old Mary is in the middle of an amazing discovery! With her is her trusty sidekick, her dog Tray, and every day, they both go to the same place with a shovel to slowly—and carefully—chip away and reveal a magnificent creature. It takes months, but when she's finally done, it's huge! Over 4 Marys long! Can you guess what it is?

Some kids play with dolls or toys. Not Mary. She always loved to explore the fossil-bearing cliffs near her town. These cliffs were constantly eroding and changing as they were battered by the rains and tides. Mary, her father, her brother Joseph and her dog Tray would set out to look for fossil discoveries together.

Three humans and one animal—10 legs—balancing precariously on the crumbly rocks searching for fossils.

The cliffs near Mary's house were the perfect place to look for fossils because they were made of layers of sedimentary rock—chalk, sandstone and limestone. They had formed on the ocean floor over 200 million years ago!

Photos: Creative Commons



The thin sediment layers perfectly preserved remnants of the past—like giant dictionaries with ancient creatures (fossils) tucked deep within their pages.

It was a story Mary had begun reading many years ago, with her dear, beloved father. But now, he had passed away and Joseph had to earn money for the family. Now, there were only six legs. Not 10. Mary found comfort in exploring for fossils and the familiar crunch of the rocks as she imagined the cold rocky sea cliffs once teeming with tropical marine wildlife.

It was hard work. At night Mary nursed her calloused hands and drew in her sketchbook. Although she was in the middle of a tremendous scientific discovery, her family still had to eat, so Mary also searched for other fossils to sell.

The first time Mary sold a large ammonite for half a crown, Mary, Joseph, Ma and Tray had a full meal to celebrate. She felt happy that she could help her family because the fossils in the rocks always seemed to be looking out for her.

News spread of Mary's discoveries and people flocked to Lyme Regis to learn more about Mary's never before seen creatures.

When she was in her 20s, Mary unearthed what people called a flying dragon. She had discovered the first pterosaur in England! It was a pterodactyl, the flying ancestor of modern birds.

She also discovered the first complete ichthyosaur, a gigantic marine reptile with a short neck and deadly powerful jaws rowed with sharp teeth. The observations she made with her sketches have taught us a lot about how dinosaurs lived.

Her life was a constellation of firsts, and even today she is honored and remembered as the pioneer princess of paleontology.

