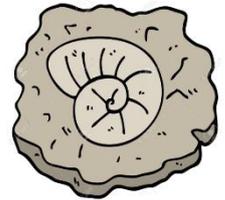


## What Is a Palaeontologist?

A palaeontologist is a scientist who learns about life on Earth by excavating, studying and examining fossils. Fossils are the preserved remains of dead organisms such as plants, animals and bacteria. When living things die, the soft parts of the body decompose into the ground. Under certain conditions however, the hard parts, such as a skeleton, become buried by rock called sediment. As more and more sediment builds-up over time, the hard parts begin to compact and eventually turn into a rock. The hard parts are dissolved by water seeping through the rock and are replaced by minerals which leave an imprint of the bone known as a fossil. This process is called fossilisation.



Palaeontologists dig up the fossils and use them to learn about how the Earth and living things have changed over time. Finding fossils was, and can still be, a treacherous activity. Palaeontologists have to take care when searching for fossils. The surfaces that they work on can be slippery and unstable. There is always a danger too that rocks will fall from above creating a potentially dangerous situation for those working below.



Mary Anning, who lived in the 1700s, was one of the first palaeontologists. Born to poor parents, she would spend most days searching the beaches where she lived in Dorset for what she called 'curiosities'; unusual things. At the age of 12, she discovered the fossil of an ancient reptile called an ichthyosaur. She went on to make many incredible discoveries in her and is thought of as one of the greatest fossil hunters to have ever lived. During one of her searches, she narrowly missed being crushed and killed by a landslide.



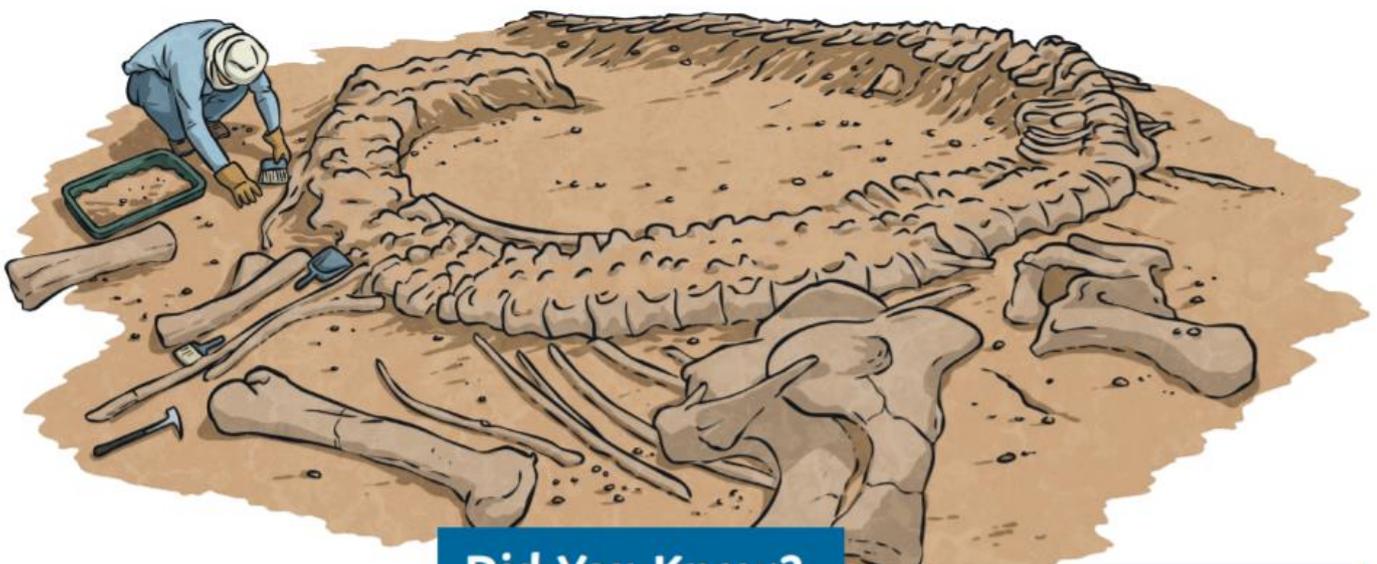
**Mary Anning**

Modern palaeontologists don't often go out searching for fossils like Mary Anning did. They search on existing sites where fossils have already been found. They take safety precautions such as wearing hard hats, using sophisticated equipment and checking the times of tides so that they don't become isolated in remote locations. New fossils are usually found by accident by people who are simply going for a walk who are not

palaeontologists at all.

Palaeontologists have taught us a great deal about what life on Earth was like millions of years ago. We know that there were animals who lived millions of years ago, the most fascinating of which are the dinosaurs.

Thanks to palaeontologists, we understand more about dinosaurs; how they might have looked, what they ate and how they lived. It is thought that dinosaurs became extinct when an asteroid collided with Earth. The impact of the asteroid was so huge that it changed the climate around the world. This is supported by evidence of a thin layer of sedimentary rock around the Earth which contains the metal iridium. This metal is rarely found in the Earth's crust but is very common in asteroids. The climate became colder and the dinosaurs were not able to survive.



### **Did You Know?**

Not all dinosaurs are dead. The avian (flying) dinosaurs did not die out. All the birds (including