

MORE THAN JUST BONES...

There are two main types of fossils: **body fossils** and **trace fossils**.

Body fossils are the remains of plants and animals. These can include bones, teeth, shells, and leaves. Very rarely, softer parts like feathers, insect wings and skin can be preserved too. Sometimes even whole animals like jellyfish and worms can become fossils.

Trace fossils are signs that show an animal was there. They are not the animal itself. Trace fossils can include footprints, burrows, nests, and even fossilised poo! These fossils help us learn how animals lived, moved and behaved.

POO CLUES!

The fancy word for fossil poo is **coprolite** (*cop-roh-lite*).

Palaeontologists can use the shape of a coprolite to work out which animal it came from. Ancient shark poos are spiral shaped whereas dinosaur poos are usually a lumpy sausage shape.



FOSSILS

WHAT IS A FOSSIL?

Fossils are the remains or signs of plants and animals that lived on the Earth a very long time ago. Some fossils are tiny like a grain of pollen but some are as big as a **dinosaur skeleton**.

Scientists called **palaeontologists** (*pay-lee-on-tol-oh-jists*) study fossils. They do this to learn more about creatures and plants that lived millions of years ago. Without fossils we wouldn't know that dinosaurs once lived on Earth!

It is very rare for a fossil to form. Most plants and animals are usually eaten, washed away or rot away leaving no trace. Even when a fossil does form, it's usually only hard bits of bone, teeth and shells that can turn into fossils. That means there's lots of things about ancient life that we don't yet know, and lots more to find out!



ichthyosaur tooth

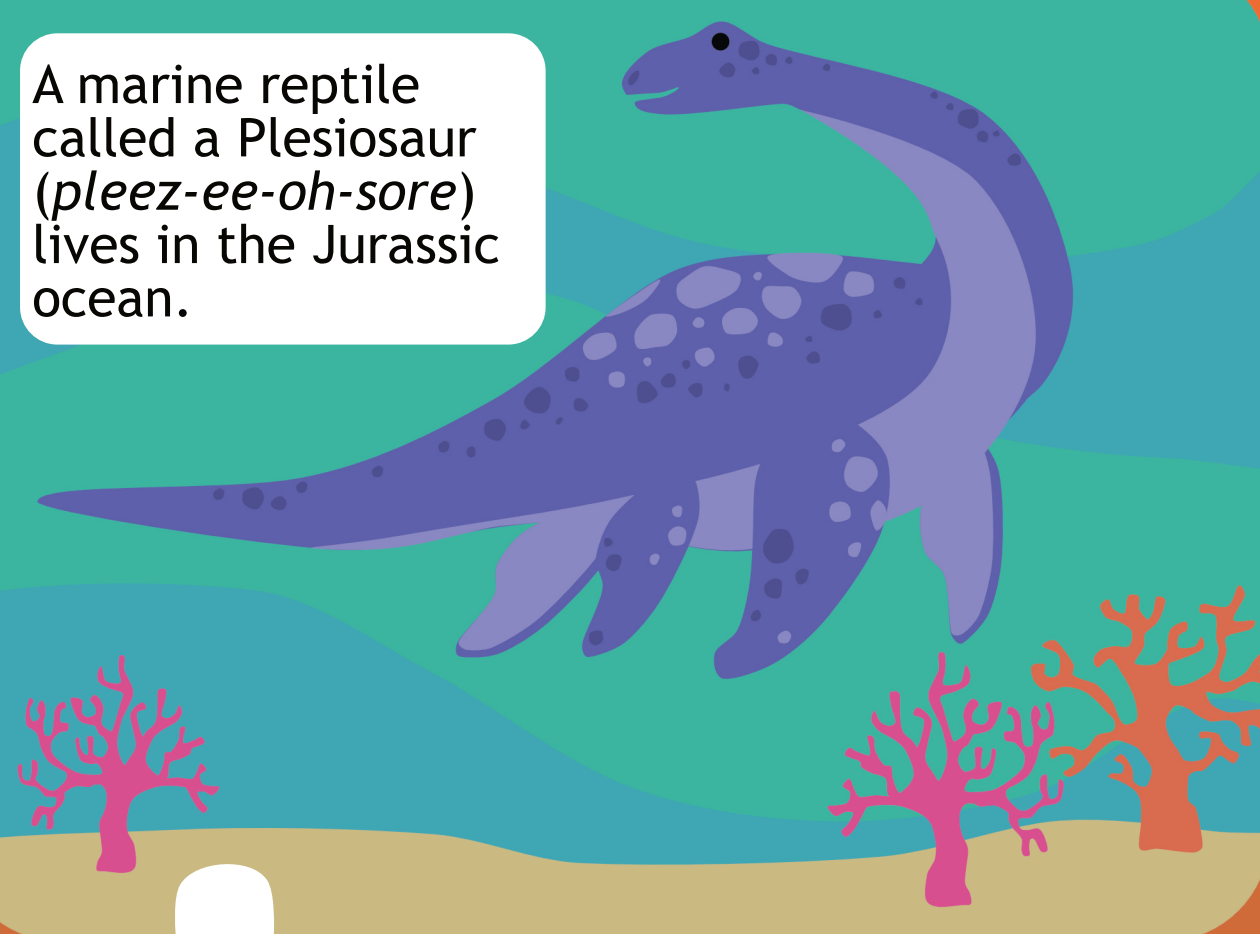
MARY ANNING

- Famous fossil hunter and collector from the Victorian times. Born in 1799.
- Lived in Lyme Regis, Dorset in the south of England.
- Found her first fossil when she was 12 years old.
- Made many incredible fossil discoveries including:
 - Ichthyosaurs** (*ick-thee-oh-sores*) - ancient marine reptiles
 - Pterosaurs** (*terr-oh-sores*) - ancient flying reptiles
 - Coprolites** (*cop-roh-lites*) - fossil poo!
- Remembered today as one of the greatest fossil hunters to have ever lived!

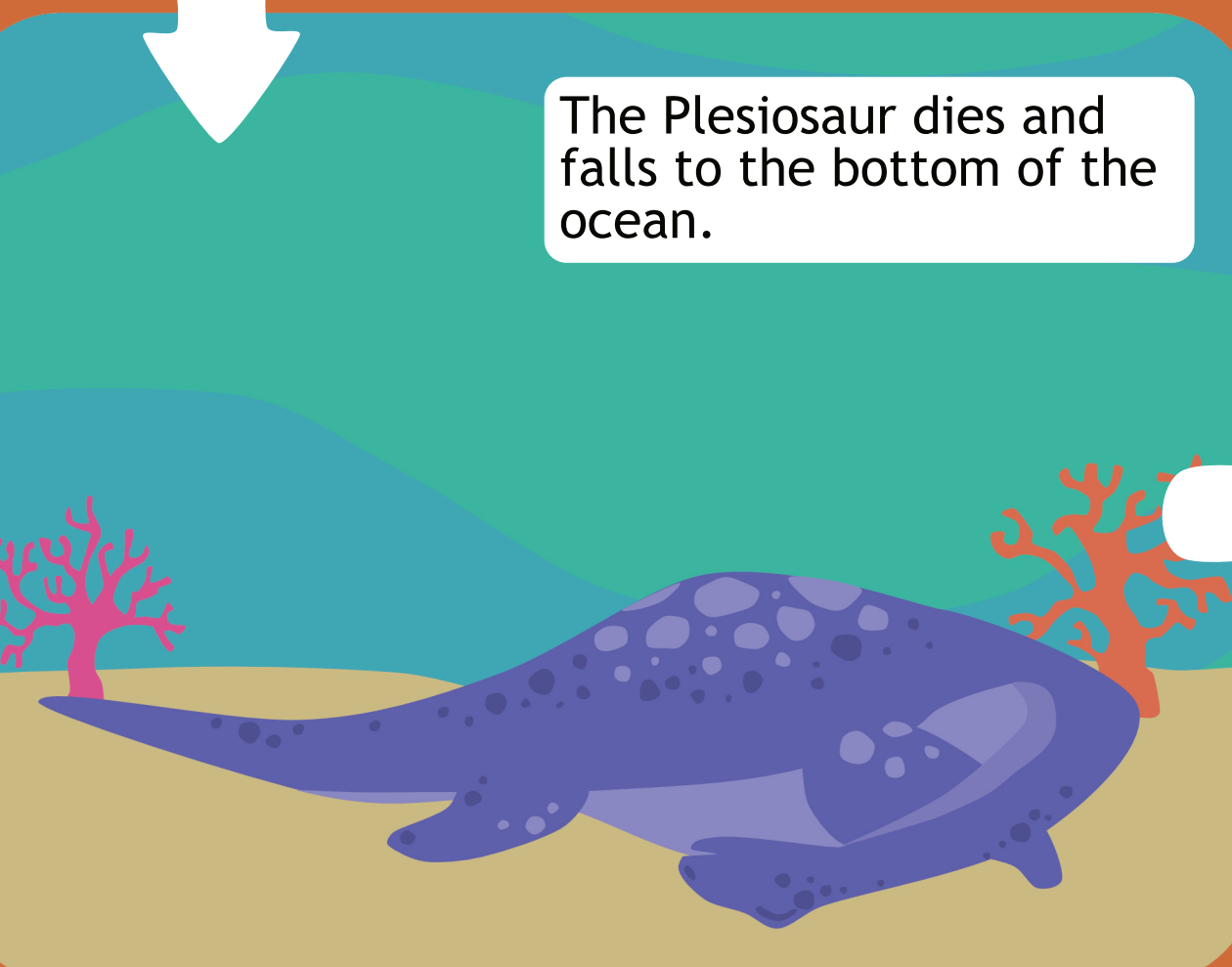


HOW A FOSSIL IS MADE!

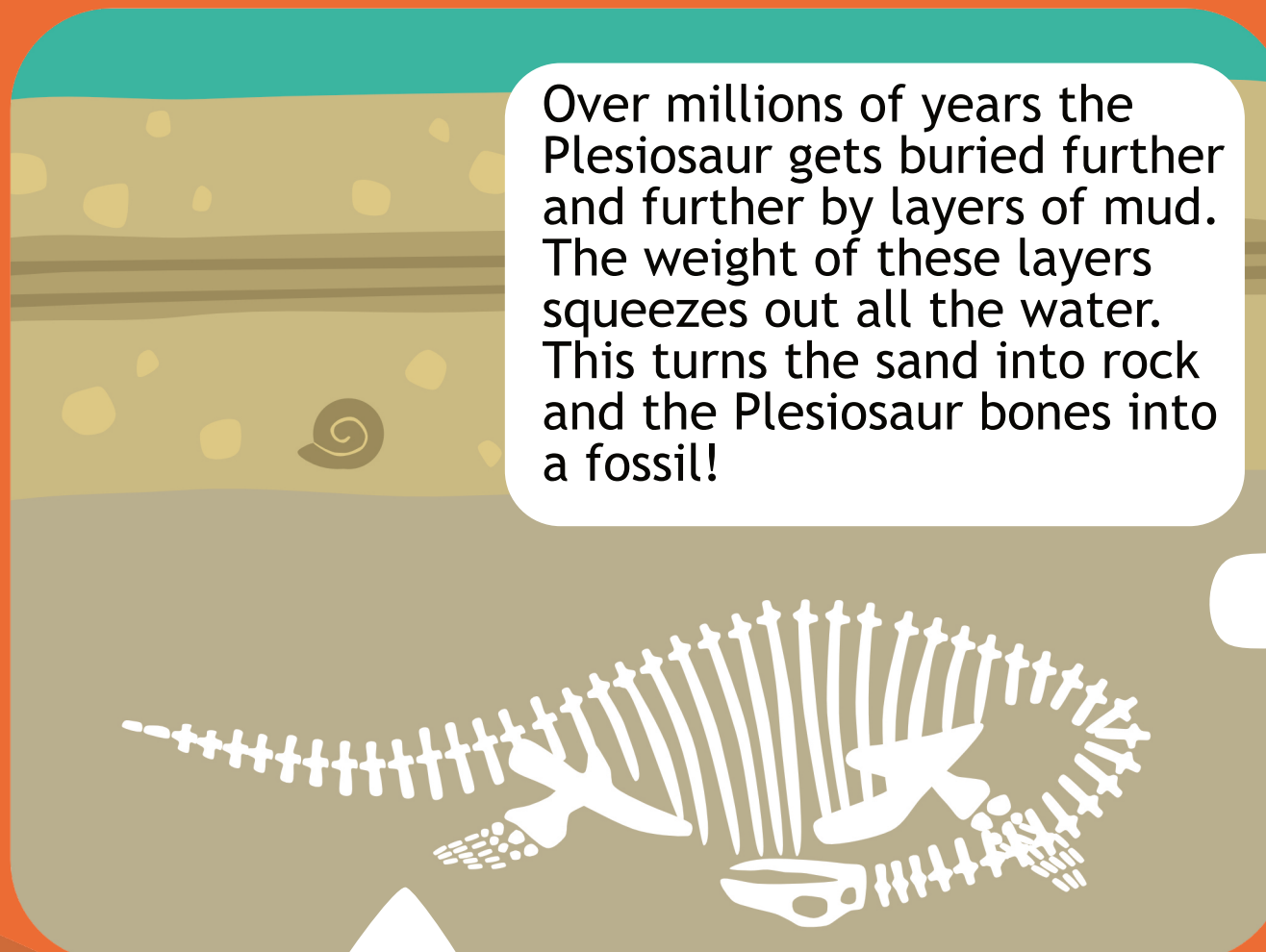
A marine reptile called a Plesiosaur (*pleez-ee-oh-sore*) lives in the Jurassic ocean.



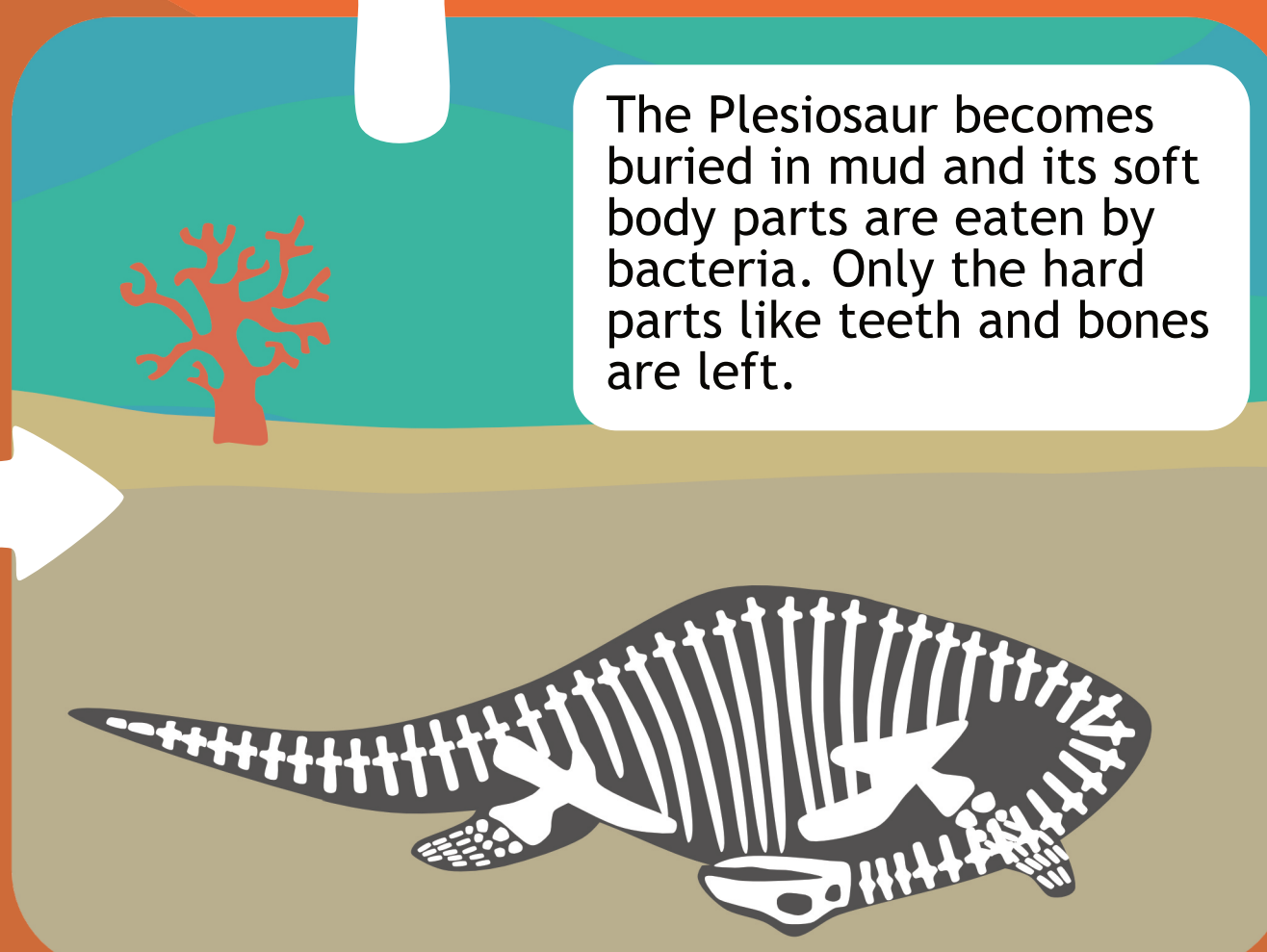
The Plesiosaur dies and falls to the bottom of the ocean.



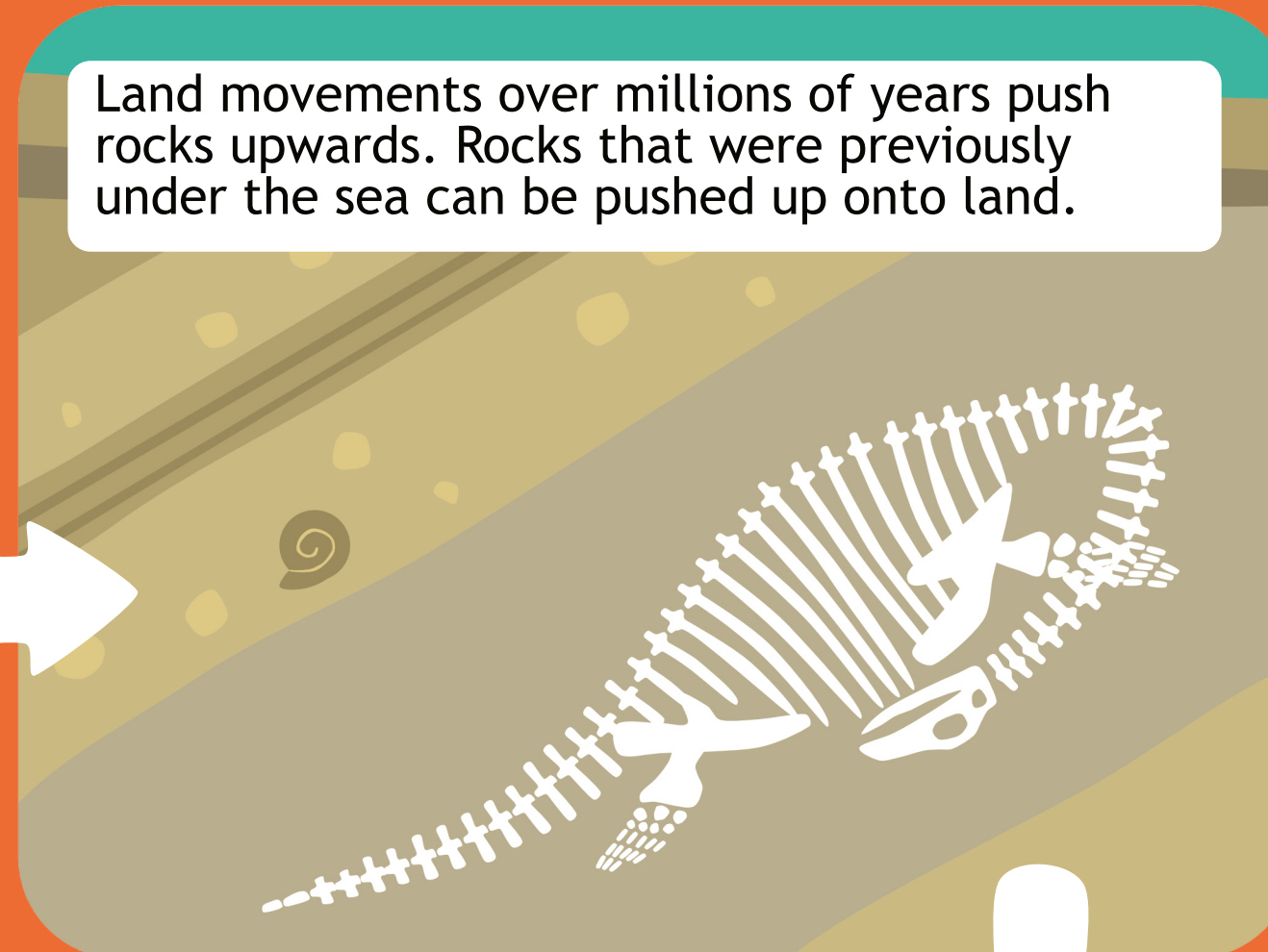
Over millions of years the Plesiosaur gets buried further and further by layers of mud. The weight of these layers squeezes out all the water. This turns the sand into rock and the Plesiosaur bones into a fossil!



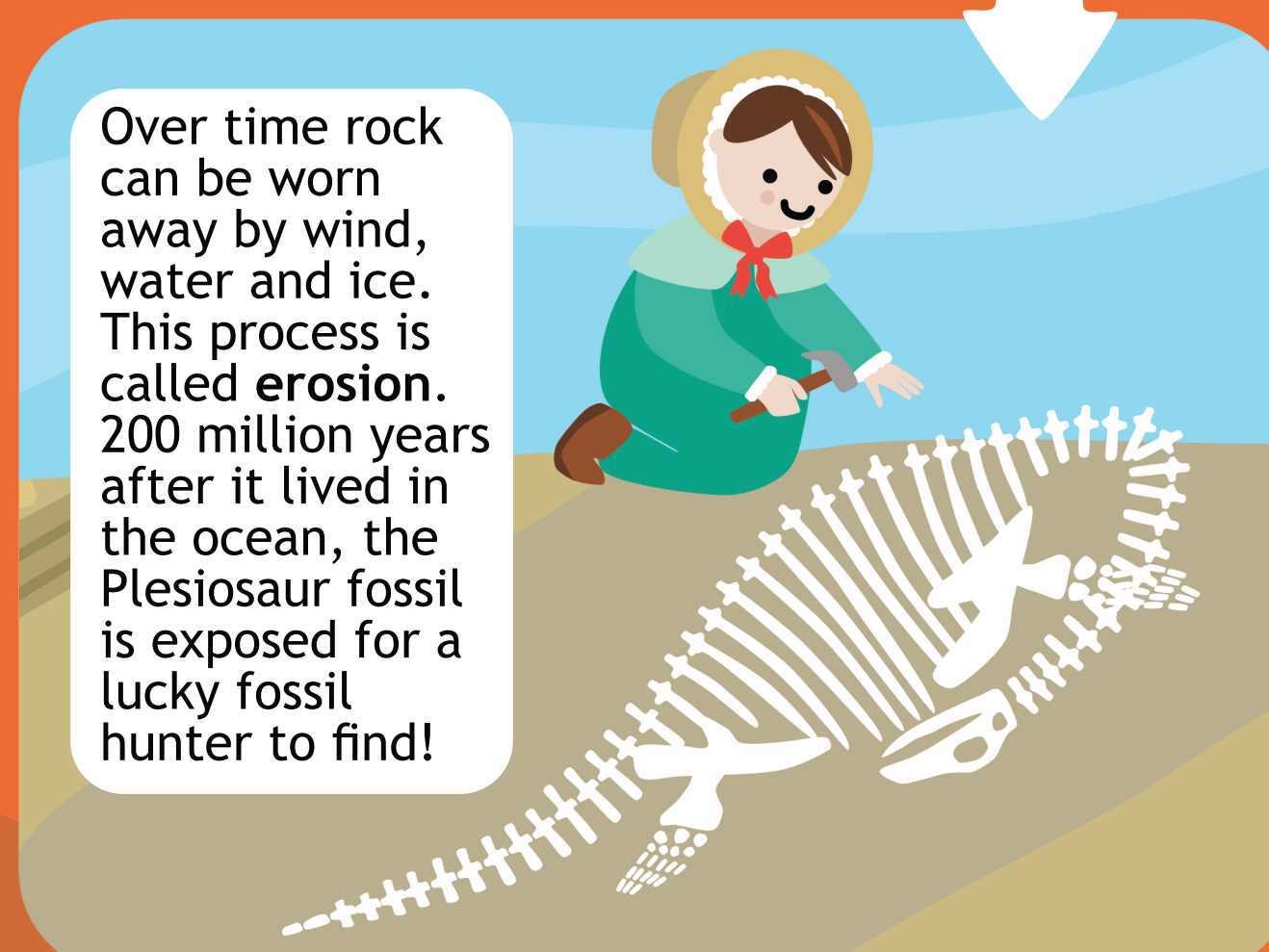
The Plesiosaur becomes buried in mud and its soft body parts are eaten by bacteria. Only the hard parts like teeth and bones are left.



Land movements over millions of years push rocks upwards. Rocks that were previously under the sea can be pushed up onto land.



Over time rock can be worn away by wind, water and ice. This process is called **erosion**. 200 million years after it lived in the ocean, the Plesiosaur fossil is exposed for a lucky fossil hunter to find!



fern



fossil fish



dinosaur footprint

