



Fossicking for

FOSSILS

What Is a Fossil?

Fossils are the remains of ancient organisms that have been naturally preserved. From leaf imprints and seashells to skeletons or even animal tracks – so many things can become a fossil.

Fossil Facts

The word 'fossil' comes from the Latin word 'fossus', which means 'dug up'.

There are two types of fossils found in the world:

- **Body fossils** – These are fossils made up from once-living organisms, such as plants or animals. Usually only the hard parts of animals, such as teeth, bones and shells, become fossilised. But sometimes you may be lucky enough to find feathers, fur or skin!
- **Trace fossils** – These fossils give us signs of life from long ago. They include animal tracks, burrows, eggs, nests and leaf impressions.

How Are Fossils Formed?

When a living thing or trace element is buried, it is protected from the environment and scavengers. Over time, the soft parts of the organism usually decay away to leave the hard bones, teeth or shell. Fossils are then formed when layers of sediment, such as clay, mud, silt or sand, build up on top of the buried organism. Once buried, minerals fill in the gaps in the organisms – basically turning them into stone!

This process takes a minimum of 10 000 years and needs the right combination of sedimentary rocks and minerals to occur. These fossilised organisms are then discovered when the rock is unearthed by erosion or an excavation.

Did You Know?

Fossils can also form when spaces are left behind, such as footprints or burrows. The space is then filled with minerals and sediment.

Where Are Fossils Usually Found?

As fossils need particular sediment and minerals to be created, they are usually found in or near bodies of water such as swamps, lakes and oceans.

You may be wondering how people then find fossils out in the middle of the desert! Many of these special places were once under water millions of years ago.

Fossil Facts

The oldest fossils ever found are from rocks found at Shark Bay, Australia. They are dated to be about 3.5 billion years old.

Did You Know?

Scientists who study fossils to find out about Earth's history are called 'palaeontologists'.

What Do Fossils Teach Us?

Fossils are amazing as they give us a sneak peek into what life was like in the past and help us compare the past with the present. Because fossils preserve past events, they can give us facts about plants and animals, weather events and even land formations over time. They can also tell us when specific events occurred. You might say fossils help scientists create a timeline of Earth's history!



One of the largest fossils ever found was a *Tyrannosaurus rex* fossil. Nicknamed 'Scotty' by palaeontologists, this ginormous skeleton measured up at about 12.8 metres long and weighed more than 60 kilograms.

Name: _____

Date: _____

Fossicking for Fossils

1. What is a fossil?

2. Why is it more common for the hard parts of animal and plant remains to be fossilised?

3. What does the text mean when it says "Fossils help scientists create a timeline of Earth's history"?

4. The text states that it takes a minimum of 10 000 years for a fossil to be produced. Why do you think this is?

5. In your own words, explain what an excavation is.

6. Which do you think would be easier for palaeontologists to excavate, body fossils or trace fossils? Explain your answer.

7. Why do you think people don't find fossils every time they dig up their own backyards?

Fossicking for Fossils

1. What is a fossil?

A fossil is the remnants of an ancient organism that has been naturally preserved by minerals and sedimentation. You can either find trace fossils, which give us signs of life (such as footprints or a burrow) or body fossils, which are made up from once living organisms.

2. Why is it more common for the hard parts of animal and plant remains to be fossilised?

It is more common for the hard parts of an animal and plant to be fossilised, as these parts are slower to decay. The time it takes for sediment to build up means that soft tissue and plant parts are scavenged or rotted away before the organism gets fully buried.

3. What does the text mean when it says “Fossils help scientists create a timeline of Earth’s history”?

Fossils can help us see how the Earth’s landscape and animals and plants have changed over time. As fossils preserve things as they were at the time that they died, we can see how the Earth has changed, and how long it’s taken for these changes to occur.

4. The text states that it takes a minimum of 10 000 years for a fossil to be produced. Why do you think this is?

(Answers may vary) It takes a minimum of 10 000 years for a fossil to be made as this is the length of time it takes for enough sedimentary rock and minerals to compress and preserve the organism.

5. In your own words, explain what an excavation is.

(Answers may vary) An excavation is a planned dig of a particular area.

6. Which do you think would be easier for palaeontologists to excavate, body fossils or trace fossils? Explain your answer.

Answers may vary depending on personal opinions.

7. Why do you think people don’t find fossils every time they dig up their own backyards?

(Answers may vary depending on personal experiences) Because of the length of time that people have lived in our major cities and towns, it is likely that any fossils will have already been found and dug up a long time ago.