

Fossils

Fossils are shapes of dead animals and plants that lived millions of years ago made in rock. Usually when something dies it is eaten or decays and disappears. However, when an animal or plant dies it can get covered over and, over millions of years, become a fossil.

Dinosaurs

- Fossils are really important to know what happened a long time ago.
- Without fossils we would not even know that dinosaurs existed!
- People who study fossils are called palaeontologists.
- Palaeontologists started studying fossils 200 years ago, so we've only known about dinosaurs for 200 years!



Did you know?

- 'Sue' is the nickname given to most complete and best preserved Tyrannosaurus Rex specimen ever found.
- The word 'fossil' comes from an old word 'fossilis', meaning 'dug up'.
- Fossils are only found in sedimentary rock.
- The fossils in the pictures are called ammonites. It is the town symbol for Whitby in North Yorkshire. Whitby is good for fossil hunting and long ago, people thought that the ammonites were snakes turned to stone by St. Hilda!

How a Fossil is Made

When a plant or animal dies, their body can sink into mud or be buried by sand. This usually happens at the bottom of the sea. When this happens it doesn't disappear. When it is underground, water and minerals leak into the bones and where bits of body used to be. This makes a hard shape. Next, the fossil gets squashed under more layers of sand, mud and other bits that make sedimentary rock. Finally, over many, many millions of years a fossil is created for someone to dig up one day.

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Questions About Fossils

Answers

1. What does a palaeontologist study?

Fossils

2. What is the nickname of the best preserved Tyrannosaurus Rex skeleton?

Sue

3. What sort of rock are fossils found in?

Sedimentary Rock (layered rock over millions of years)

4. Which town has an ammonite fossil as their symbol?

Whitby

5. Why have we only got fossils to find out about dinosaurs?

Because they lived so long ago and nothing else would last that long.

(Discuss what we have now as evidence: photos, film, books, stories passed down through generations etc.)

6. What is sedimentary rock?

Rock made from different layers over time.

7. How come the fossilised animals or plants haven't been eaten by other animals?

They were buried under mud or sand (or similar).

8. The author used an exclamation mark at the end of the Fossil Facts section to make it sound surprising. Why is that sentence surprising?

It does not seem possible to turn snakes into stone. It could seem strange that people believed this. (Did people think it was magic?)

9. Why aren't there any fossils of cats that lived twenty years ago?

Fossils take millions of years to make. Twenty years is not anywhere near long enough.

10. Do you think the ammonites in the pictures look like snakes? Why?

Open ended for discussion.

Fossils

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Dinosaurs

Fossils are really important in understanding what has happened a long time ago. Without them we would not even know that dinosaurs existed! People who study fossils are called palaeontologists and these are the people who have found out what we now know about dinosaurs. However, this only started 200 years ago, so we've only known about dinosaurs for 200 years!



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How a Fossil is Made

When some plants or animals die, their body sinks into mud or is buried by sand. This often happens at the bottom of the sea and stops it from rotting or being eaten by other animals. Whilst it is underground, water and minerals seep into the bones and where the bones and body used to be, to make a hard shape. This is squashed under more layers of sand, mud and eventually rock over many, many millions of years.

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2. What is the nickname of the best preserved Tyrannosaurus Rex skeleton?

3. What sort of rock are fossils found in?

4. Which town has an ammonite fossil as their symbol?

5. Why have we only got fossils to find out about dinosaurs?

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(Discuss what we have now as evidence: photos, film, books, stories passed down through generations etc.)

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'dug up'

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They were buried under mud or sand (or similar).

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To add surprise: It is surprising to us today that anyone could believe that snakes could turn to stone. (Discuss why they might have thought that though).

9. Why aren't there any fossils of cats that lived twenty years ago?

Fossils take millions of years to make. Twenty years is not anywhere near long enough.

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Open ended for discussion.

Fossils

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Dinosaurs

Fossils are essential to understanding about life a long time ago. Without them we would not even know that dinosaurs existed! People who study fossils are called palaeontologists and these are the people who have found out what we now know about dinosaurs. However, this only started 200 years ago, so we've only known about dinosaurs for 200 years!



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How a Fossil is Made

When a plant or animal dies, their body sinks into mud or is buried by sand. This usually happens on the sea bed. Being buried preserves it from rotting or being eaten by other animals. Whilst it is underground, water and minerals seep into the bones and where the bones and body used to be and make a hard shape. This is squashed under more layers of sand, mud and eventually rock over many, many millions of years. Much later, palaeontologists or fossil hunters may find it as the rock in which it is encased becomes unearthed.

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10. In the 'How a Fossil is Made' section, what does the word 'seep' mean?

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3. Why do you think fossils are never found in igneous rock?

It is too hot and it will have destroyed the fossils/fossils are not able to form.

4. Why do you think that the people of Whitby thought that the ammonites were snakes turned to stone by St. Hilda?

Ammonites look like curled up snakes but do not have a head.

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Fossils take millions of years to make. Twenty years is not anywhere near long enough.

10. In the 'How a Fossil is Made' section, what does the word 'seep' mean?

A liquid flowing or leaking SLOWLY through a POROUS material. Discuss what the liquid and porous material is in this case (water and sedimentary rock).