



KS2U Science

Properties & Changes of Materials
Fossils - Clues from the past



Fossils - clues from the past

- The Isle of Wight is rich in fossils
- ► This is because it is made up of <u>sedimentary</u> rock
- Many fossils form in this type of rock

Student Introduction

- ✓ Discover how fossils form
- Learn about where fossils are found
- ✓ Find out when the fossilised organisms lived



Understanding Fossils

A fossil can be described as: 'the remains or impression of a plant or animal (any once-living organism) hardened in rock'.

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mud.

Stage 1

Stage 2

Stage 3

Stage 4

Stage 5

Stage 6

In the end, there will be a 'rock copy' of the original organism (or part of it).

This is the fossil!

It is now ready to be discovered!

Once the organism is covered up, it is unlikely to be disturbed.

Soft parts of the plant or creature rot away and hard parts, like teeth, are left behind.

First of all an organism dies.

Mud and other sediments build up and the ground gets very wet and heavy.

As the bones decay, water infused with minerals seeps into the bone.

If the organism is accidentally buried in mud, clay, grits or sands then it has a better chance of becoming a fossil.

If not, it will decay naturally or be scavenged by prey.

Microfossils Have a look at the microfossils under the Dinosaur Isle museum microscope

Why are they called 'microfossils'?

Name three things under the microscope that have been fossilised:

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Which animals living today are related to the ammonite?

udest. UK What did the ammonite feed on?

How can we tell this was a fast-swimming type of ammonite?



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Exhibit 32 information for teachers and students

in case QR code/wi-fi unavailable

Introduction

Deshayesites sp. is a type of ammonite. Ammonites are molluscs and are very closely related to living animals such as squids, octopuses and nautiluses.

Exhibit no 32

Deshayesites would have been a carnivore, preying on other animals for its food. The shape of the shell is very narrow and relatively streamlined which means Deshayesites may have been a relatively fast swimming ammonite.

This specimen has been cut and polished so that you can see the internal structure of the ammonite, and the way that it has been fossilised.

Inside of the ammonite you can see numerous curved brown lines. These are chambers of the ammonite which allow is to control its buoyancy in the seas (how high it goes in the water column). The insides of the shell have been filled by a mineral called calcite. The calcite has been deposited by mineral rich waters; much of the calcite in the waters has probably been dissolved from the shells of other animals.

The calcite has formed in numerous layers, showing there were several periods of the calcite being deposited, stopping, and then starting again. Usually the calcite has been layered on the surface of the chambers but sometimes it has formed through them.

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