

Key threads

Chemistry	Working scientifically
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Whole-school definition of science

Science is a way to understand our world by carefully thinking about it and testing our guesses with observations and experiments.



Enquiry

Carrying out comparative and fair tests

Working scientifically

Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

Using straightforward scientific evidence to answer questions or to support their findings.

Rock detectives



New Knowledge (what we are going to learn)

Different materials including rocks have different properties.

You can group together different kinds of rocks on the basis of their appearance and simple physical properties.

Soils are a mixture of rocks and organic matter

Fossils are formed when trapped with rock

Prior knowledge (what we all ready know)

There are different materials and they are used to make different objects.

Materials can be sorted into groups according to their observable properties.

Different materials are suitable for different uses (properties that can be observed)

The shape of some solid materials can be changed by a contact force acting on them.

New vocabulary

Limestone is a grey/white rock that was formed from the bones of tiny sea creatures that dropped down to the bottom of the sea when they died. It is used as a building stone, and to make concrete.

Chalk is a softer, white rock and is a type of limestone.

Granite is harder and tough, usually grey to pink in colour and often used for buildings. Granites are made up of crystals, which can often be seen clearly on the surface.

Slate is fine-grained and when expertly cut it will form smooth flat sheets of stone, which have long been used for roofing, floor tiles and other purposes. Slate is frequently grey in colour, especially when seen covering roofs, but can be found in other colours.

Marble is made of limestone that has experienced extreme heat and changed to form a hard rock that is used in buildings and to create sculptures. It can be white but varies in colour, depending on where it comes from

Soils - There are six main soil types: clay, sandy, silty, peaty, chalky, loamy.

Fossils - Most of the creatures that fossils were formed from would have lived in the sea, died or been killed and dropped to the ocean floor, where layers of sediment built up on top of them over many centuries. The pressure of the rock building up in layers over time caused the body of the creature to change and the remains became fossilised and mineralised by the surrounding material.

Useful vocabulary

sandstone, granite, chalk, limestone, marble, pumice, rough, smooth, hard, soft, rock, stone, pebble, texture, particle, crystal, granule, properties, soil, clay, sandy, loam, peat, organic material, weather, weathering, frost, beach, cliff, trilobite, starfish, sea urchin, ammonite, fossil, fossilise, remains