

Key Knowledge

Rocks are a naturally occurring materials that are made by a solid mass of **minerals** that have joined over time.

There are 3 types of rock: **sedimentary** – these are formed by squashing together layers of broken bits of other rocks and the remains of plants and animals.

Igneous rocks are formed when molten rock or **magma** cools down.

Metamorphic rocks are formed when they are subjected to intense heat and pressure underground.

Rocks have many different uses, but they have a range of **properties** which means different rocks are used for specific things.

Fossils are formed when animals or plants become trapped between layers of dirt and mud. Because of this, fossils can be found in sedimentary rocks. It is rare for fossils to form because usually dead material rots away.

Soil is the name given to the dirt or mud that covers the earth. There are different types of soil, made up of different minerals.

Key Vocabulary

Geology	The study of rocks.
Palaeontology	The study of fossils.
Minerals	A natural substance that comes from the earth.
Permeable	When water can soak into a rock.
Impermeable	When water does not soak into a rock, it just runs off of it.
Fossilisation	The name of the process that organic materials go through to become a fossil. This takes millions of years.
Organic Matter	Material that comes from living things or things that were recently alive.
Organism	Any living thing – this includes plants, animals and insects.

Types of Rocks

Igneous	Sedimentary	Metamorphic
- Forms from magma or lava solidification - Hard, no layers	- Forms from sediment compaction - Crumbly, layered	- Forms by transformation of other rocks - Relatively hard, may or may not have layers
 Intrusive slow magma cooling Granite	 Clastic compacted broken rocks Sandstone	 Foliated has layers Slate
 Extrusive rapid lava cooling Obsidian	 Chemical compacted dissolved minerals Limestone	 Non-Foliated no layers Marble
	 Organic compacted biogenic matter Coal	

TYPES OF FOSSILS

Mold Fossil	Cast Fossil	Trace Fossil	True Form Fossil
			

