Dig Deep
How interesting can a rock be?

1. Are all rocks the same?

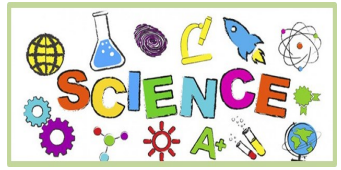
Rocks form in three distinct types:

Igneous: Form when molten rock (magma or lava) cools and solidifies.

Sedimentary: Originate when particles settle out of water or air, or by precipitation of minerals from water. They accumulate in layers.

Metamorphic: Result when existing rocks are changed by heat, pressure, or reactive fluids, such as hot, mineral-laden water.

Natural Rocks			Human-Made Rocks
Igneous	Sedimentary	Metamorphic	
Obsidian	Chalk	Marble	Brick
Granite	Sandstone	Quartzite	Concrete
Basalt	Limestone	Slate	Coade Stone

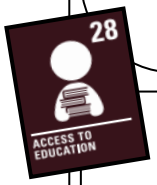


2. What are different rocks used for?

Igneous: One important use is for buildings and statues.

Sedimentary: Chalk is used the classroom for chalkboards. Sandstone is used to make construct buildings, statues, and fountains . blades and other implements.

Metamorphic: They are frequently chosen for building materials and artwork. Marble is used for statues and decorative items like vases



Applying Past Knowledge

This is the first time you have come across this learning but it links to your prior learning on materials in years 1 and 2.

Significant events/places/people

Haroun Tazieff - Volcanologist studied how rocks change when they're heated and cooled near a volcano.

4. What is soil?

Soil is the uppermost layer of the Earth. Soil is a mixture of tiny particles of rock, dead plants and animals, air and water. Different soils have different properties depending on their composition.

It is a mixture of different things:

- Minerals
- Air
- Water
- Organic matter

Chalky Soil

Sandy Soil

Clay Soil

3. How are fossils formed?

An animal dies. Some parts of the body decay and, usually, only the skeleton is left. → The skeleton is covered with sand, earth, rock or seabed before the bones can disappear. → Over a very long time, the bones break down and leave a space in the earth, like an empty mould. → Minerals slowly fill the space in layers, in the exact shape of the bones. → Under lots of pressure, the new minerals harden into rock. → The earth is eroded away by the weather or the sea. The rock fossil is exposed and discovered.

Key Vocabulary

Fossil	the remains of prehistoric plants or animals embedded in rock
Permeable	rock that lets water through
Impermeable	a rock that doesn't let water through
Sediment	rocks formed at the bottom of lakes or the sea
Peat	a type of soil made from dead plants