



Science – Year 3 Rocks

Vocabulary

Tier 1	Tier 2	Tier 3
Stone	Igneous	Fossil
Cliff	Sedimentary	Weathering
Volcano	Metamorphic	Permeable
Earth	Topsoil	Density
Heat	Subsoil	Durable
Ancient	Bedrock	Palaeontology

Useful Resources

- Different rock samples: slate, marble, granite, limestone, sandstone, chalk.
- Microscopes to closely observe the texture of different rocks.
- Fossils samples.

Key Scientists:

Mary Anning – (1799 – 1847) was an English fossil collector and palaeontologist who became known around the world for the discoveries she made in the cliffs along the Jurassic Coast.






Fossilisation Process



A creature dies and is covered by sediment. Everything is compacted and form layers of rock.



Over time, the sea recedes in places. As erosion and weathering takes place, the fossils are exposed.

Igneous	Sedimentary	Metamorphic
Granite 	Sandstone Limestone 	Marble Slate 

Key Questions/Facts

What different types of rock are there?

- Igneous rocks are formed from melted rock deep inside the Earth.
- Sedimentary rocks are formed from layers of sand, silt, dead plants, and animal skeletons under the sea.
- Metamorphic rocks are formed from other rocks that are changed by heat and pressure underground.

What are fossils?

- Fossils are the preserved remains of an animal.
- Mold fossils form when all the parts (including the bones) have decayed and all that is left is the mold of the animal.
- Replacement fossils form when water dissolves from the bones and replaces them with minerals.
- Whole body fossils form when the original body has been preserved – for example a woolly mammoth in ice.

What are the properties of rocks?

- Permeable or impermeable: If a rock is permeable, this means it allows water to pass through it.
- Durable: Rocks that are durable are more resistant to weathering (being eroded – that is broken down – by rain and wind).
- Density: how 'bulky' the rock is (how tightly packed the molecules are). High density rocks sink whereas low density rocks float.