Rocks

Prior Learning

Year 1 Materials:
> distinguish between an object and the material from which it is made
> identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
> describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties.

Year 2 Everyday Materials:
> identify and compare the suitability of a variety of everyday materials

Following on:

Year 5 Properties and Changes of Materials:
> Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials

Year 6 Evolution and Inheritance:
> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth

Rocks

Rocks are made up of different minerals and form the Earth's crust (outer layer). There are 3 different types of rocks; igneous, sedimentary and metamorphic.

Igneous Rocks - Igneous rock is formed when magma or lava from volcanoes cools. Examples include basalt and granite.

Sedimentary Rocks - Sedimentary rocks are formed over millions of years when sediments (tiny pieces of rocks and animal skeletons) are pressed together at the bottom of seas and rivers. Examples include sandstone, coal and chalk.

Metamorphic Rocks - Metamorphic rocks are formed when other rocks are changed due to heat or pressure. Examples include slate and marble.

Soils

Soil is formed of fine rock particles mixed with air, water and particles from dead plant and animal matter. There are three main types of soil which are classified according to the amount of sand and clay in them. Soil is vital to life on Earth because plants can't grow without the water and nutrients it contains, and animals can't survive without plants.

Facts	Key Vocabulary	Definition
Most of our planet is made of rocks. Rocks are made of one or more minerals. The oldest rocks ever to be found were formed about 4 billion years ago – only two pieces of rock this old have ever been found.	**Igneous**	Rocks that were once so hot that they were liquid.
Rock can be hard or soft and can be porous (has space for water to get in) or non-porous (doesn't have any spaces in it to let water in). We say that a rock is permeable if it lets water in easily, or impermeable if it doesn't let water in at all.	**Sedimentary**	Formed from sediment left by water, ice, or wind.
Rocks are used for a range of purposes depending on their properties. For example, granite is very hard and impermeable, so it is often used as a building material; while chalk is a rock that wears down easily and so is used to write and draw with.	**Metamorphic**	Rocks that have had their original structure changed by pressure and heat.
Erosion is the movement of rock fragments after weathering. Once rock has been eroded it gets washed away and may start to reform new sedimentary rocks.	**Pressure**	Force that you produce when you press hard on something.
It takes over 500 years for just 2cm of topsoil to form.	**Properties**	A quality that is shared by all rocks or soils of this type.
There are approximately 10,000 different types of soil found in Europe.	**Fossil**	The remains or traces of plants and animals that lived long ago
The largest single fossil ever found was a petrified tree. It was found in Thailand and was over 72m long.	**Sediment**	Solid material that can be moved by wind or water.