SEDIMENTARY

These rocks form under the sea. Rocks are broken into small pieces by wind/water (erosion). They settle as mud, sand, minerals and even remains of living things. Over time, layers pile up and the pressure turns this sediment into rock.



limestone chalk sandstone

Rocks and Soils

Year 3 - Science - Autumn Term 2



FOSSILS

A fossil is the remains or the impression left by a prehistoric plant or animal embedded in rock. They are only found in sedimentary rock.



What is soil made of

<u>AIR</u> - Oxygen, carbon dioxide, nitrogen etc. <u>ORGANIC MATTER</u> -Living and dead plants and animals.

<u>WATER</u> - Air and water fill the gaps between particles of soil.

> MINERALS -Minerals come from broken down rook

IGNEOUS

Far underground, the temperature is so hot, rock melts into a liquid (molten rock).

When the liquid is underground it is called 'magma'. When it spills out (volcano), the liquid is called 'lava'_It cools to form igneous rock.



obsidian granite basalt

marble.

slate

quartzite

METAMORPHIC

When sedimentary or igneous rock is near magma, it heats up and chemicals change in the rock. However, it does not heat up enough to melt it. As it cools it becomes metamorphic rock.



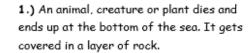
These rocks are made by humans.

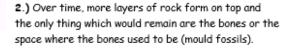
<u>CONCRETE</u> - a mixture of water,
sand/rock/gravel and cement (chalk & clay)

<u>BRICKS</u> - Clay soil, sand or lime which have
been air-dried or fire-hardened.

<u>MOCK ROCK</u> - Victorians made rock
aardens and surfaces that looked like rock.







- Sometimes sediment enters the space where the bones used to be and takes the shape of the creature (cast fossil).
- Over a long period, the sea may recede / go back leaving the rock.



5.) Erosion and weathering of the rock means the fossil can now be seen!

PROPERTIES OF ROCKS

- HARD / SOFT Some rocks need to be cut or split with tools because they are so hard (e.g. granite) but others are soft and can be moulded (e.g. clay).
- 2.) PERMEABLE / IMPERMEABLE Permeable rocks allow water to pass through (e.g. pumice) but impermeable rocks do not let water pass through (e.g. marble)
- 3.) DURABLE Rocks which are resistant to erosion last longer and are more durable. Buildings are often made with these (e.g. limestone)
- 4.) DENSITY If the particles in the rock are tightly packed then it has a high density. These rocks would sink in water (e.g. basalt).

