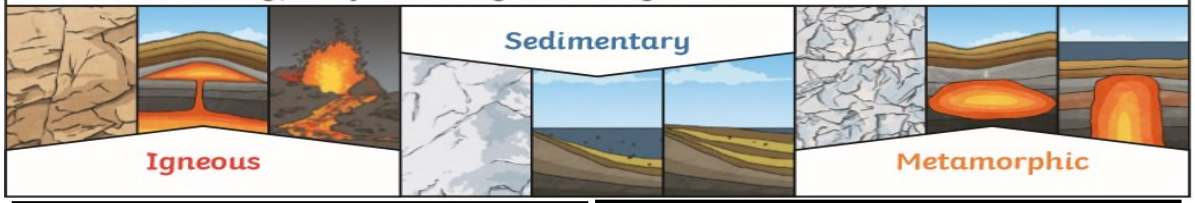
Year 3 and 4 – Rocks and Fossils

KNOWLEDGE ORGANISER

Key Knowledge

There are three types of naturally occurring rock.

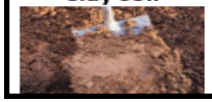


Sedimentary	
sandstone 	limestone 
chalk 	Chalk is used for drawing because it is crumbly and soft.
Metamorphic	
quartzite 	slate 
marble 	Marble is good for gravestones because it does not rub away.
Igneous	
basalt 	pumice 
granite 	Granite is good for worktops because it is hard and does not absorb water.

Soils

The property of soils is affected by the:

- type of rock
- size of rock pieces
- amount of organic matter in it.

Peat 	- water-logged - contains partially decomposed plant material - soft and easily compressed
Sandy soil 	- light and dry - lots of air gaps so water drains through quickly
Chalky soil 	- stony and water drains through quickly - found in areas with lots of chalk
Clay soil 	- very sticky when wet - a heavy soil - water does not drain through it quickly

Fossils were formed millions of years ago.

1 Plants and animals died and sank to the seabed.	**2** The soft parts decayed away leaving the hard parts.	**3** The hard parts were covered and squashed by many layers of sand and other materials.	**4** The animal/plant matter dissolves and is replaced by minerals, leaving a replica of the original bone called a fossil.

Key vocabulary

igneous rock	Rock that has been formed from **magma** or **lava**.
sedimentary rock	Rock that has been formed by layers of **sediment** being pressed down hard and sticking together. You can see the layers of **sediment** in the rock.
metamorphic rock	Rock that started out as **igneous** or **sedimentary rock** but changed due to being exposed to extreme heat or pressure.
magma	Molten rock that remains underground.
lava	Molten rock that comes out of the ground is called **lava**.
sediment	Natural solid material that is moved and dropped off in a new place by water or wind, e.g. sand.
permeable	Allows liquids to pass through it.
impermeable	Does not allow liquids to pass through it.
fossilisation	The process by which fossils are made.
palaeontology	The study of fossils.
erosion	When water, wind or ice wears away land.

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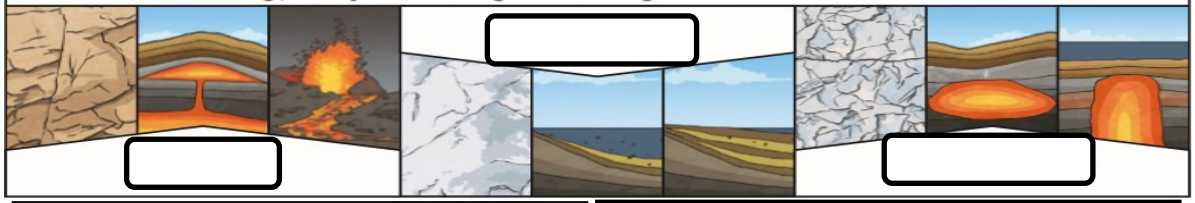

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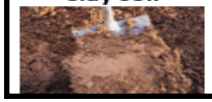
Clay soil 	- very sticky when wet - a heavy soil - water does not drain through it quickly

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