Pye Bank CE Primary DSAT Knowledge Organiser

YEAR 5 — GEOLOGY: What is the rock cycle? — SCIENCE

KEY VOCABULARY

crust- Earth's rocky outer layer, this includes the continental plates and the bottom of oceans

erosion- the gradual destruction of rocks, usually by wind or water

freeze-thaw – the action of ice or water on rocks

inner core- the inner most part of the Earth, it is made from solid iron

lithosphere – crust and upper mantle

magma- molten rock

mantle- the semi-liquid layer below the earth's crust

outer core-part of the centre of the Earth, this is made of molten iron and nickel

rock cycle- the cycle of processes which convert one type of rock into another

strata- layers of rock, or sometimes soil

weathering – breakdown of rocks at the earth's surface, usually by rainwater or temperature

KEY CONCEPT – TYPES OF ROCK

Metamorphic Rocks – They are formed by great heat and pressure. They are generally found inside the Earth's crust where there is enough heat and pressure to form the rocks. Metamorphic rocks are often made from other types of rock.

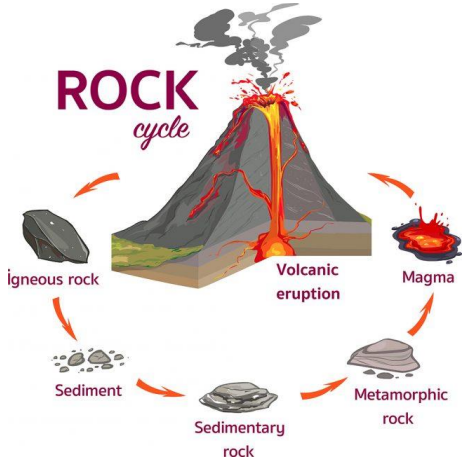
Igneous Rocks - Igneous rocks are formed by volcanoes. When a volcano erupts, it spews out hot molten rock called magma or lava. Eventually the magma will cool down and harden, either when it reaches the Earth's surface or somewhere within the crust. This hardened magma or lava is called igneous rock.

Sedimentary Rocks - Sedimentary rocks are formed by years and years of sediment compacting together and becoming hard. Generally, something like a stream or river will carry lots of small pieces of rocks and minerals to a larger body of water. These pieces will settle at the bottom and over a really long time (perhaps millions of years), they will form into solid rock.

STICKY KNOWLEGDE

1. Sedimentary, metamorphic and igneous rocks are classified and named based on how they were formed.
2. Rocks are continually changing because of processes such as weathering, erosion and large earth movements. Through the rock cycle, rocks are gradually recycled over millions of years.
3. The layers of the Earth can be roughly divided into the crust, mantle, outer core and inner core.
4. Rocks can change through chemical or physical weathering.
5. Physical weathering includes changes made by: wind, rain, waves, ice or temperature.

KEY CONCEPT - THE ROCK CYCLE



Sedimentary, igneous and metamorphic rocks can be converted through the rock cycles through weathering + erosion; heat + pressure; melting + cooling.

Rocks are continually being broken down and reformed as described by the rock cycle

KEY CONCEPT - STRUCTURE OF THE EARTH