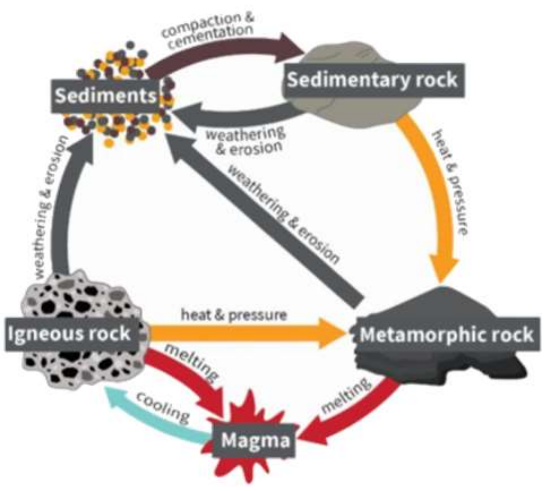
Knowledge Organiser for Year 3/4 Science: Rocks

Prior Knowledge
-states of matter (solid, liquid, gas) -causes and processes to change state (heat/cold; melt, freeze; dissolve) -layers of Earth (crust, mantle, inner and outer core) *Geography* -the source and forms of magma *Geography*
Future Links
-plate tectonics (Geography)

Key Vocabulary	
rock	A naturally occurring solid substance formed of one or more minerals.
sediment	Solid material that is moved to a new location, e.g. fragments of rock, minerals, remains of plants or animals.
erosion	A gradual wearing-away of natural materials.
weathering	Breaking down of rock through wind, rain, ice and heat.
morph	To change or transform.
soil	Loose material found on Earth's surface made from water, air, minerals (sand, silt, clay and small stones) and decaying plant and animal matter.
fossil	The preserved remains or imprint of a dead organism.

Types of Rock (3 main types)		
Igneous	Formed when molten rock cools and solidifies. -usually very hard and strong -forms above, at or deep below Earth's surface	
sedimentary	Formed from the accumulation and squashing of loose sediment (sand, pebbles, debris) that has built up in layers. -often crumbly -forms on or near to Earth's surface	
Metamorphic	Great heat and pressure cause rock to change, to metamorphose. -usually hard -forms deep beneath Earth's surface	

The Rock Cycle



Fossil Formation

Fossilisation is rare as particular conditions are needed.

After an animal dies, the soft parts of its body decompose leaving the hard parts, like the skeleton, behind. This becomes buried by small particles of rock called sediment.

As more layers of sediment build up on top, the sediment around the skeleton begins to compact and turn to rock.

The bones then start to be dissolved by water seeping through the rock. Minerals in the water replace the bone, leaving a rock replica of the original bone called a fossil.