


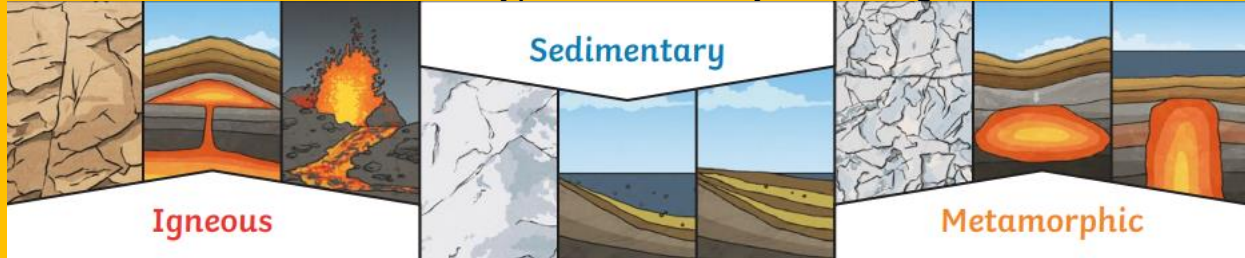


Knowledge is Power...

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SUBJECT Science –Rocks and soils	TERM: Summer 2023	YEAR GROUPS: 3/4
<p>What I should already know:</p> <ul style="list-style-type: none">How to identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.How shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.		
Overview	Rocks and soils (sticky knowledge)	
<ul style="list-style-type: none">Compare and group together different kinds of rocks on the basis of their appearance and simple physical propertiesDescribe in simple terms how fossils are formed when things that have lived are trapped within rockRecognise that soils are made from rocks and organic matter	<ul style="list-style-type: none">There are different types of rock.There are different types of soil.Soils change over time.Different plants grow in different soils.Fossils tell us what has happened before.Fossils provide evidence.Paleontologists use Fossils to find out about the past.Fossils provide evidence that living things have changed over time.	
Rocks and soils – Key Terms		
<p>There are three types of naturally occurring rocks</p> 		


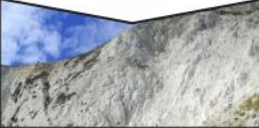



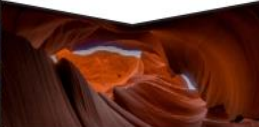


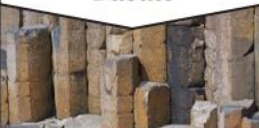






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Key Vocabulary		Key terms/ knowledge			
Igneous rock	Rock that has been formed from magma or lava .	Natural Rocks			Human-Made Rocks
Sedimentary rock	Rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see layers of sediment in the rock.	Igneous	Sedimentary	Metamorphic	
Metamorphic rock	Rock that has started out as igneous or sedimentary rock but that has changed due to being exposed to extreme heat or pressure.	Obsidian	Chalk	Marble	Brick
Magma	Molten rock that remains underground.				
Lava	Molten rock that comes out of the ground is called lava .	Granite	Sandstone	Quartzite	Concrete
Sediment	Natural solid material that is moved and dropped off in new places by water or wind, e.g., sand.				
Permeable	Allows liquids to pass through it.	Basalt	Limestone	Slate	Coade Stone
Impermeable	Does not allow liquids to pass through it.				
Paleontology	The study of fossils. erosion When water, wind or ice wears away land	<p>Some words you might use to describe or discuss the properties of rock are hard, soft, permeable, impermeable, durable (meaning resistant to weathering), high density, low density. Density measures how 'bulky' the rock is (how tightly packed the molecules are).</p>  <p>Caves are formed when water permeates through the bedrock and erodes some of the rock away. Over thousands of years these caves can become very large.</p>			








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Key term: Fossilisation

				
An animal dies. It gets covered with sediments which eventually become rock.	More layers of rock cover it. Only hard parts of the creature remain , e.g., bones, shells and teeth.	Over thousands of years, sediment might enter the mould to make a cast fossil . Bones may change to mineral but will stay the same shape.	Changes in sea level take place over a long period.	As erosion and weathering take place, eventually the fossil becomes exposed.

Key terms/ knowledge

Mary Anning -Paleontologist (a scientist who studies fossils)



Mary Anning was born on the 21st May 1799 in Lyme Regis, Dorset. From an early age she was searching for fossils on the local beaches with her father and brother to sell to local people. Mary became known around the world for her important fossils finds. Her discoveries included the first ever ichthyosaur skeleton, the first two plesiosaur skeletons found; the first pterosaur skeleton located outside Germany and many important fish fossils. Her findings contributed to important changes in scientific thinking about prehistoric life and the history of the Earth. She died on the 9th March 1847.

Key Scientists:
Mary Anning
(Discovery of Fossils)

Inge Lehmann
(Earth's Mantle)

Possible linking texts:

The Pebble in My Pocket (Meredith Hooper)

Stone Girl, Bone Girl (Laurence Anholt)

The Street Beneath My Feet (Charlotte Guillain & Yuval Zommer)

Soil is the uppermost layer of the Earth. It is a mixture of different things:

- minerals (the minerals in soil come from finely broken-down rock);
- air;
- water;
- organic matter (including living and dead plants and animals).

