MINI ADVENTURE KNOWLEDGE ORGANISER
PIONEERS AUTUMN 2 2019-2020
CHILDREN IN CONFLICT

Science and Geography

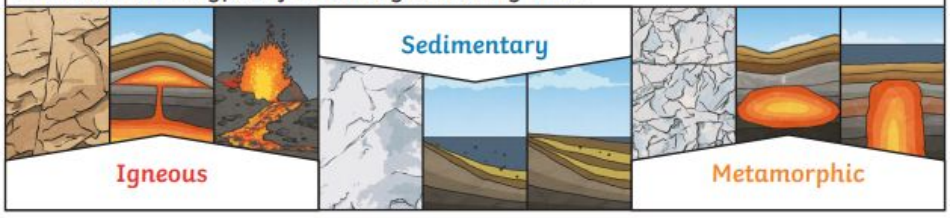
Key Vocabulary	
igneous rock	Rock that has been formed from magma or lava.
sedimentary rock	Rock that has been formed by layers of sediment being pressed down hard and sticking together. You can see the layers of sediment in the rock.
metamorphic rock	Rock that started out as igneous or sedimentary rock 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.

Key Vocabulary	
cumulonimbus cloud	Large thunderstorm clouds.
erupt	To suddenly burst out causing lava to explode out of the earth's surface.
fossils	The remains of plants or animals that lived a long time ago which can be found deep in the earth.
magma	Extremely hot, liquid rock.
tectonic plates	The earth's crust is made up of large areas called tectonic plates that join together.

Key Knowledge

There are three types of naturally occurring rock.



Natural Rocks			Human-Made Rocks
Igneous	Sedimentary	Metamorphic	
Obsidian	Chalk	Marble	Brick
Granite	Sandstone	Quartzite	Concrete
Basalt	Limestone	Slate	Coade Stone

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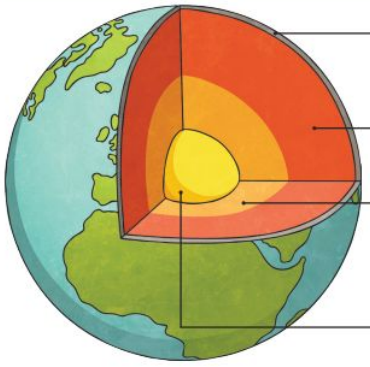
Fossilisation

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.
				

Layers of Earth



Crust
Thin outer layer. Hard rock. 10km–90km thick.

Mantle
Extremely hot rock that flows. 3000km thick.

Outer core
Iron and nickel. Mostly liquid with some rocky parts. 4000°C.

Inner core
Iron and nickel. Hottest layer at over 5000°C.

Volcanoes

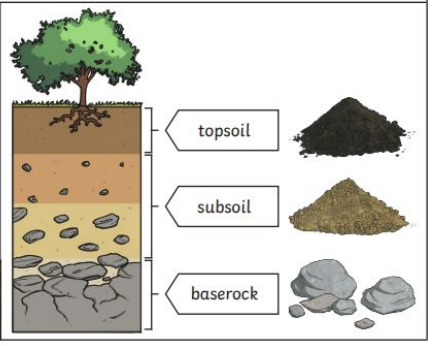
- Volcanoes are made when pressure builds up inside the earth. This affects the earth's crust causing magma to sometimes erupt through it.
- Active volcanoes have erupted in the last 10 000 years.
- Dormant volcanoes haven't erupted in the last 10 000 years but may erupt again.
- Extinct volcanoes aren't expected to erupt again.

Key Knowledge

Soil

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).



Working Scientifically

What can I change in this experiment?
Independent variable

What can I measure in this experiment?
Dependent variable

What are all the other things I need to keep the same each time?
Control variables

Asking a **scientific question:**
What happens to *what I am measuring* when I change *the independent variable (the thing I change)*?

E.g. What happens to the distance the toy car travels when I change the height of the ramp?

I will keep _____ constant (the same) by...

Making a **prediction** (what do I think will happen?)
"I predict that when I change the independent variable, then what I am measuring will....

Key vocabulary for a prediction:
Increase, decrease, speed, length, weight, force, rate, temperature, time taken, volume, greater, fewer

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Key Features of Explanation Texts

Title shows what the text is about. Often uses "How…" or "Why…"
Opening paragraph introduces the process.
Chronological order with **time conjunctions.**
Stages of the process clearly broken down.
Present tense (unless it's a historical explanation).
Impersonal tone.

Technical vocabulary specific to the topic.
Diagrams/illustrations with labels.
Cause and effect conjunctions explain how one event leads to the next.
Final paragraph (**conclusion**) links back to the opening.
Passive voice is often used. (e.g. something **is done**)

William Morris – The Style

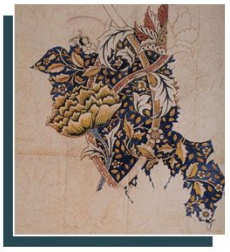
William Morris is very famous for his wallpaper designs. He created some beautiful designs, the likes of which had never been used before. In fact, wallpaper before his day was quite plain.

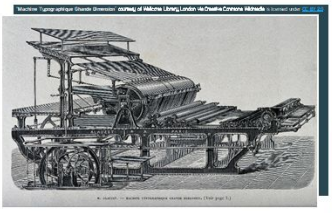
The Victorian era was the era of industrialisation; factories were being built in the cities in Britain, especially London. People flocked to the cities to work in these factories or run them, and the cities grew bigger and bigger. As a result, people led more urban lifestyles and grew to miss the countryside. Wealthier people did have gardens, but still, it was desirable to feel closer to nature.

William Morris, who was also an environmental campaigner, created designs of floral patterns (patterns inspired by flowers and plants) which were repeated many times by block printing.

William Morris – The Technique

What William Morris did was to make designs of floral patterns (patterns inspired by flowers and plants) that could be repeated many times by block printing techniques on large pieces of paper to make patterned wallpaper.





This process was later improved through advances in technology, using printing machines and synthetic coloured inks.