Year 3 Knowledge Organisers

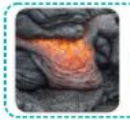
Autumn 2023

Science

Knowledge Organiser: Rocks

Careers connected to rocks: geologist, archaeologist

Lesson Sequence



1. Explore the formation and properties of igneous rocks

2. Explore the formation and properties of sedimentary and metamorphic rocks

3. Weathering and the suitability of rocks for different purposes

4. Explore how water contributes to the weathering of rocks

5. Understand how fossils are formed

6. Explore different types of soil

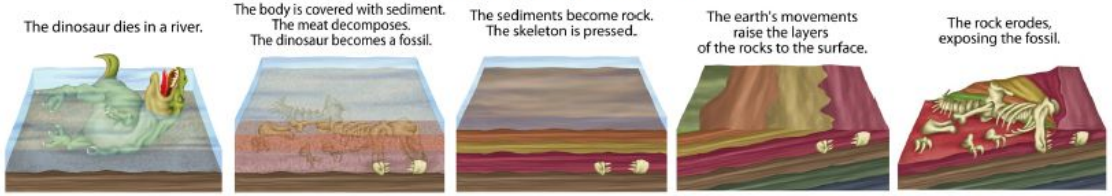
What is soil made from?

AIR – Oxygen, carbon dioxide, nitrogen
ORGANIC MATTER – Living and dead plants and animals.
WATER – Air and water fill the gaps between particles of soil.
MINERALS – Broken down rock.

chalk	flint	marble	limestone	sandstone	granite
					

Igneous Rock	Metamorphic Rock	Sedimentary Rock
		
Far underground the temperature is so hot, rock melts into a liquid (molten rock). When the liquid is underground, it is called magma and it can cool to form igneous rock.	Metamorphic rocks are formed under the surface of the earth from the change (metamorphosis) that occurs under the intense heat and pressure (squeezing).	These rocks form under the sea. Rocks are broken into small pieces by wind and water (erosion). They settle as mud, sand, minerals and even remains of living things. Over time layers build up and the pressure turns this sediment into rock.

How fossils are formed.



Geography

Knowledge organiser – Climate Zones

What will we be learning?

- How to identify lines of latitude.
- The location of climate zones.
- Comparison of climates.
- The weather patterns in a climate zone.
- How to write a weather forecast.
- The characteristics of climate zones.

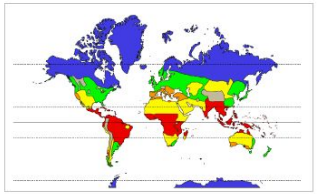
Key facts

The world's climate zones:

Arid (hot and dry), **Mediterranean** (dry summers and mild, wet winters), **Temperate** (no extreme weather, with rainfall throughout the year), **Tropical** (high temperatures all year round, with lots of rain), **Polar** (a dry climate with very low temperatures).

Key knowledge

Climate is the average daily and seasonal weather patterns over a long period of time.
The Equator is an invisible line that runs around the centre of the Earth. The closer you live to the Equator, the hotter it is.
As the Earth is tilted on an axis, the Northern and Southern Hemispheres experience different types of weather at the same time of the year.



Place names	Geographical terms and processes	Locational terms
Cairo (Egypt) London (UK) Manaus (Brazil) Nuuk (Greenland) Santiago (Chile) Seville (Spain)	axis meteorologist orbit precipitation *(KS1 snow, rain)* temperature weather station	Equator latitude map index Northern Hemisphere North Pole Southern Hemisphere South Pole

Glossary

climate: *long-term weather patterns*
climate zone: *a part of the world where places have a similar climate (i.e. arid, Mediterranean, temperate, tropical, polar)*
precipitation: *rain, hail, fog, sleet and snow*
weather: *day-to-day temperature, wind, rainfall, etc*

History **The Stone Age** Knowledge Organiser

Key Vocabulary	
Bronze	A metal alloy made from a mixture of copper and tin. It is harder and longer lasting than stone or copper alone.
Alloy	A metal made by combining two or more metals to improve its properties
Bone marrow	The substance inside bones, which is high in fat and a good energy source.
Earthwork	A large bank or mound of soil that has been made on purpose.
Celt	A modern term for the people living in Europe during the Iron Age. The 'Celts' were made up of many different tribes.
Sacrifice	To give something up, break it or kill it as an offering to a god or gods.
Tribe	A group of people, often related through family, culture and language, usually with one leader.
Iron	A metal that is stronger and harder than bronze.

DID YOU KNOW?

Historians have learnt about this time by digging up artefacts that were used thousands of years ago.

General Knowledge

- The Stone Age is named after the stone tools that the earliest humans used to help them survive.
- They used the stone tools to kill animals, such as mammoths, for their meat, bone marrow and skins.
- Bones were also useful for making tools, such as needles to sew skins together.
- People in the Stone Age moved around from place to place with the seasons, in order to keep safe and warm and to follow the animals they hunted.

Roundhouses

Large families lived in a roundhouse. The walls were made of daub (straw, mud and tail) and the roof of straw.

Stonehenge

Stonehenge is a famous prehistoric monument in southern England, built at the end of the Stonehenge and into the Bronze Age. Originally, it was just an earthwork and up to 150 people were buried there. The huge stones that we see were added in different stages. Some were brought from 240 miles away in Wales.