# 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

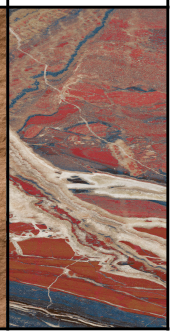


6. Explore different types of soil

## What is soil made from?

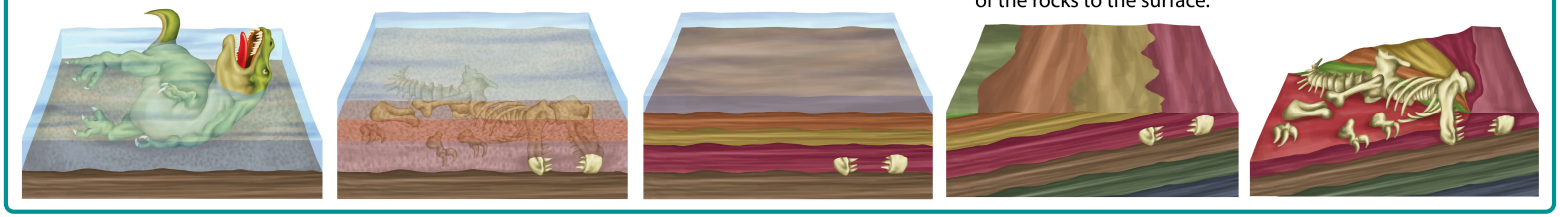


AIR – Oxygen, carbon dioxide, nitrogen
ORGANIC MATTER – Living and dead plants and animals.
WATER – Air and water fill the gaps between particles of soil.
MINERALS – Broken down rock.

| 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.




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# Unit Rocket Words: Year 3 – Rocks

## Rocket Words

| | |
|---|---|
| igneous rocks | rocks created from solidified lava |
| intrusive igneous rock | rock that has been formed under the Earth's surface over a long period of time |
| extrusive igneous rock | rock that has been formed from molten lava and either cooled quickly or slowly |
| magma | hot liquid rock below the surface of the Earth. When a volcano erupts it can be seen, and is called lava |
| sedimentary rock | rocks that are made from layers of sediment that has been subjected to heat and pressure |
| metamorphic rock | rocks that have changed from igneous or sedimentary through heat and pressure |
| weathering | the wearing away of rocks which are broken down into smaller pieces |
| Acid rain | rain which has been made too acidic by air pollution |
| erosion | the wearing away of rocks by wind or water |
| fossil | the imprint of a prehistoric plant or animal embedded in rock |
| decompose | the process where dead animals and plants break down into smaller parts |
| fragments | small pieces |

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