



Types of Rocks

Igneous

Formed by solidified molten rock.

Extrusive (volcanic)

Formed when molten rock reaches the Earth's surface and cools.

Intrusive (plutonic)

Formed when crystallized magma, cooled over time, is solidified deep in the Earth.



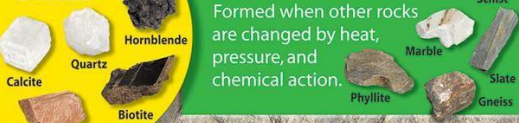
Minerals

Rocks are made of minerals.



Metamorphic

Formed when other rocks are changed by heat, pressure, and chemical action.



Sedimentary

Formed when combinations of rock fragments, seashells, and chemicals are compressed in layers and hardened.



Key Facts:

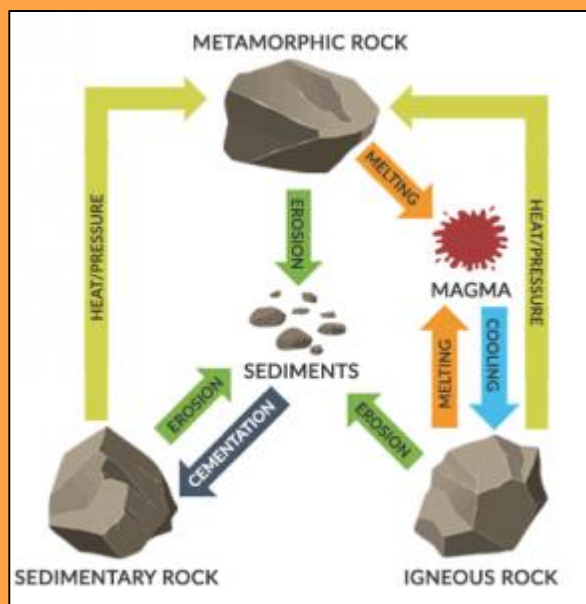
- Layers of sediments are pressed hard and stick together to form sedimentary rock. You can see the layers within the rock.
- Igneous rocks are formed by magma or lava which then cools down.
- Metamorphic rock is when either sedimentary or igneous rock changes due to extreme heat or pressure.
- Igneous and Metamorphic rocks have more similar characteristics than Sedimentary rock.
- Fossils are formed when an animal or plant dies and is layered with sediments. Over years, sedimentary rock compresses over it while the organism decays leaving a hole or mould left in the rock.
- Soil is formed from eroded rock mixing with air, water and animal or plant particles.
- There are different layers underneath our feet!

LINKS IN THE CURRICULUM:

Year 1 - materials
Year 2 - materials
Year 4 - matters of state
Year 5 - materials and change

KEY VOCABULARY

| | |
|----------------|--|
| Rock | A solid mineral material forming part of the surface of the earth. |
| Soil | The upper layer of work in which plants grow. |
| Stone | A hard, solid mineral matter of which rock is made, especially as a building material. |
| Pebble | A small stone made smooth and round by action of water or sand. |
| Mineral | A solid, naturally occurring substance. |
| Permeable | Liquids or gases can pass through something. |
| Non-permeable | Liquids or gases cannot pass through something. |
| Erosion | The gradual destruction by wind, water or other natural elements. |
| Weathering | Wear away or change the appearance or texture of something. |
| Organic matter | Materials that come from a recently living organism. |
| Fossil | The remains or impression of a plant or animal in rock. |
| Texture | The feel, appearance or consistency of a surface. |
| Bedrock | The solid rock found under the soil. |
| Subsoil | Soil lying underneath the surface soil. |



Working Scientifically

- Observing rocks and exploring how and why they changed over time.
- Using a hand lens to help identify and classify rocks according to whether they have grains, crystals, and whether they have fossils in them.
- Research and discuss different kind of living things that are found in sedimentary rock and explore how fossils form.
- Explore different soils and identify similarities and differences.
- Investigate hardness and permeability of rocks.
- Raising and answering questions about the way soils are formed.