



Rock Types: Formation

Igneous: Formed by lava erupting at constructive plate boundaries and solidifying or molten magma beneath the Earth's surface cooling and solidifying. Examples include granite and basalt.



Sedimentary: Made of small particles from deposited rock, sand or tiny fossilised sea creatures. Over millions of years layers of sediments are compressed by the weight of the deposits above, into sedimentary rocks. Examples include chalk, limestone and clay.



Metamorphic: Rocks that have been changed in shape and form by intense heat and pressure at a plate boundary or along a fault line. These rocks start as either igneous or sedimentary rocks. Examples include slate and marble.

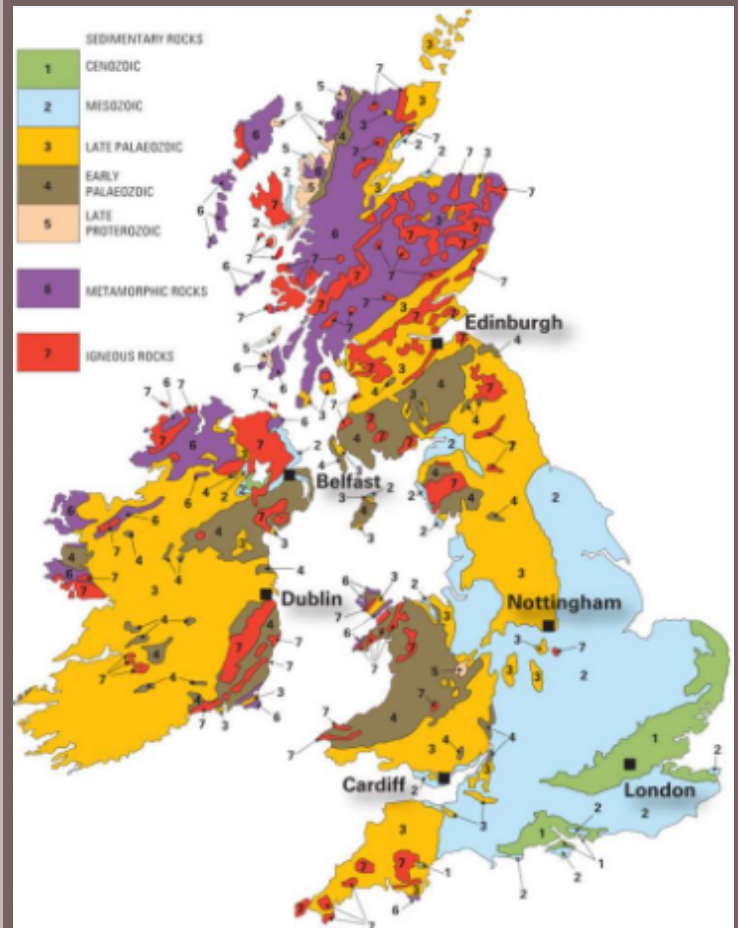


Rock Types: Characteristics

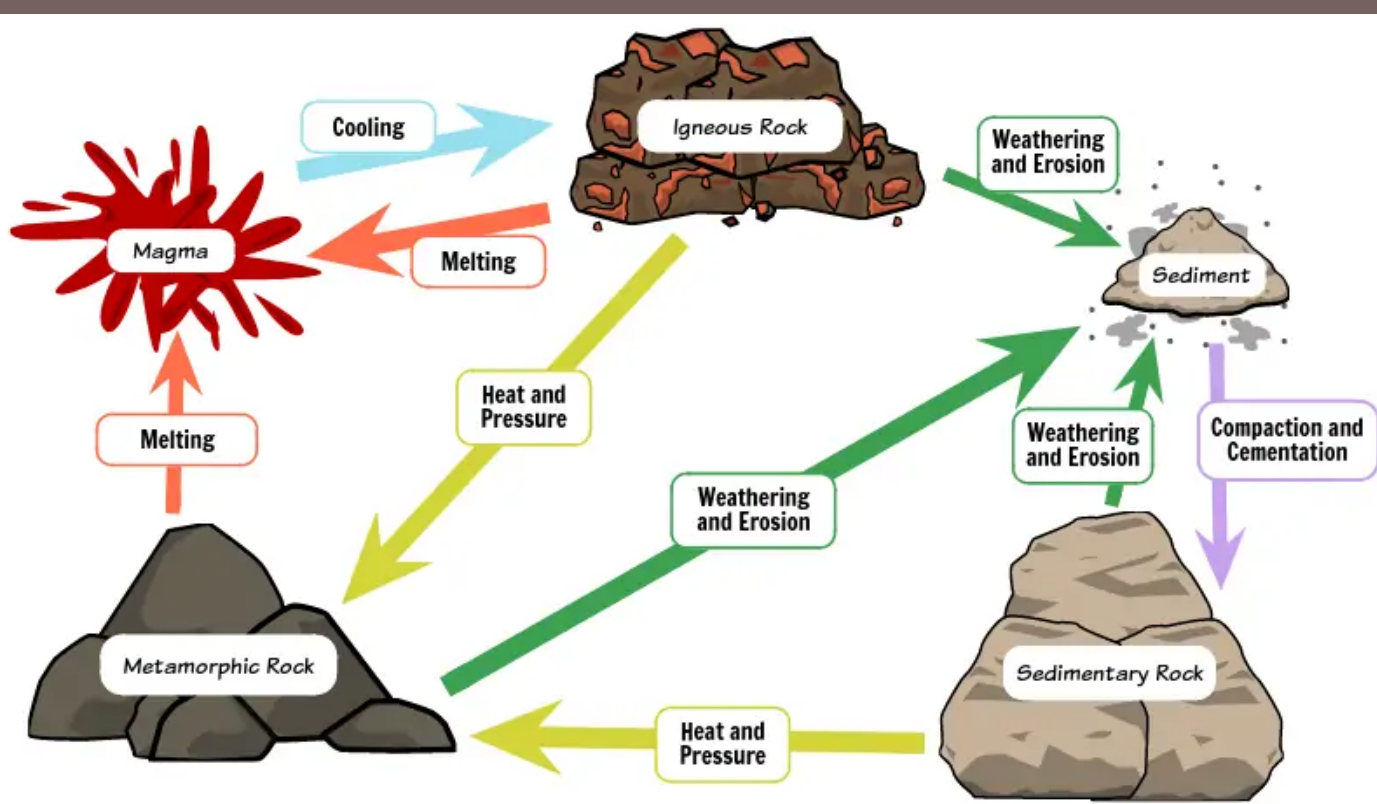
Hard rocks that are difficult to erode.	Contain fossils.	Rocks are made from a variety of minerals.
Rocks can be changed multiple times before reaching their final form. At each stage they become a different type of rock.	Contain crystals.	Do not contain fossils.
Are made up of layers or 'strata.'	Contains layers of minerals that run-in bands perpendicular to where pressure was placed on the rock = foliation.	Mostly porous and permeable.
Can feel coarse (large crystals) or smooth (small crystals). Crystal size depends on cooling time. The longer the rock takes to cool, the larger the crystals.	Softer and easier to erode.	Very hard rocks that are highly resistant to erosion.

Key: Igneous Sedimentary Metamorphic

UK Geology Map



The Rock Cycle



Land Use Definitions

Agriculture: The practice of cultivating plants and animals for human use.

Forestry: The science or practice of planting, managing, and caring for forests.

Settlement: A place where people live. It can range in size from an isolated dwelling to a million strong city.

Tourism: The commercial organisation and operation of holidays and visits to places of interest.



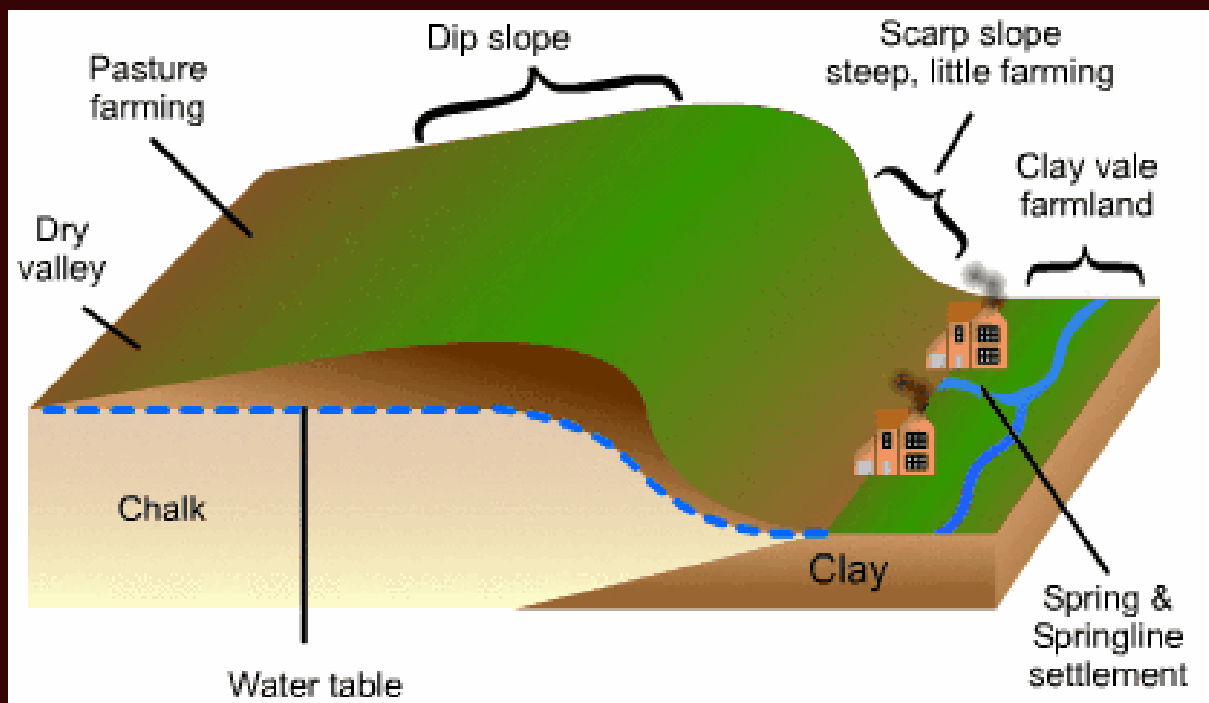
UK Features Created by Weathering and Erosion

Dartmoor Tors: Dartmoor is an upland landscape. 290 million years ago a dome of magma developed here. It cooled to form granite & cracks known as joints developed. Overtime the granite was eroded away and now only blocks with fewer joints remain, these are the Tors!

Limestone Pavements above Malham Cove: Malham is in the Yorkshire Dales. Limestone pavements are created through the process of chemical weathering as rainwater passes through the cracks in the rock. The pavement is formed of grykes (gaps in the pavement) and clints (the blocks left behind).

Malham Cove: Malham cove is a limestone cliff shaped like an amphitheatre. Over millions of years movements in the Earth caused softer rock to slip away, leaving behind limestone cliffs. At the end of the last ice age a meltwater waterfall, eroded the cliff back to its current position.

Chalk Escarpment



North & South Downs: Advantages & Disadvantages

Settlements:

Advantage - Settlements were built on the south slopes, providing them with shelter from these natural slope.

Disadvantage - There has been a decline in community facilities such as post offices, general stores, pubs and schools.

Forestry:

Advantage - Timber harvested from the National Park woodland is a valuable sustainable product, with growing markets in construction and fuel for heating.

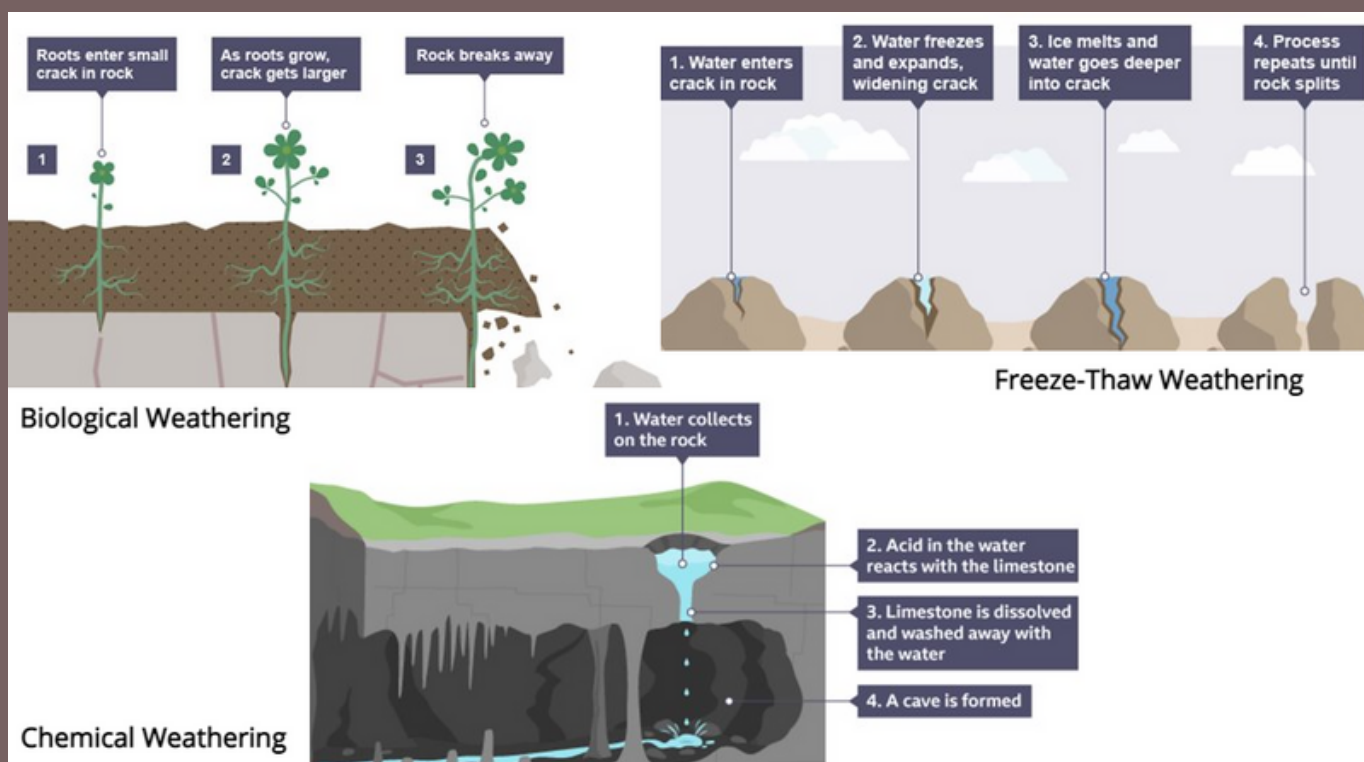
Disadvantage - Many of the hazel and chestnut coppices are under threat, because people no longer manage them in the traditional way, due to this biodiversity declines.

Agriculture:

Advantage - Income generated from farming supports the local economy; agricultural businesses account for 6% of employment in the park.

Disadvantage - There has been a significant decline in chalk grassland from the use of chemicals in farming.

Types of Weathering



FUN FACT: The groundwater from the South Downs could fill 86,000 Olympic swimming pools a year.

