

UK landscapes

- When describing a landscape you should consider three layers of information: **physical base layer** (where rock type/geology and landscape processes have sculpted a physical landscape. **Biological layer**- including the soil, plants and trees. **Human layer** - including settlements, communications and farming.
- Landscapes and land use change over time, especially in towns and cities e.g. Manchester's inner city known as the Salford Quays. The area has been transformed into a successful centre for media, shopping, museums and modern apartments.



The **Lake District**, a spectacular mountain landscape in north-west England, became a **national park** in 1951. In 2017, became a **UNESCO World Heritage Site** for its beauty, farming and the inspiration it has provided artists and writers.

Limestone pavement

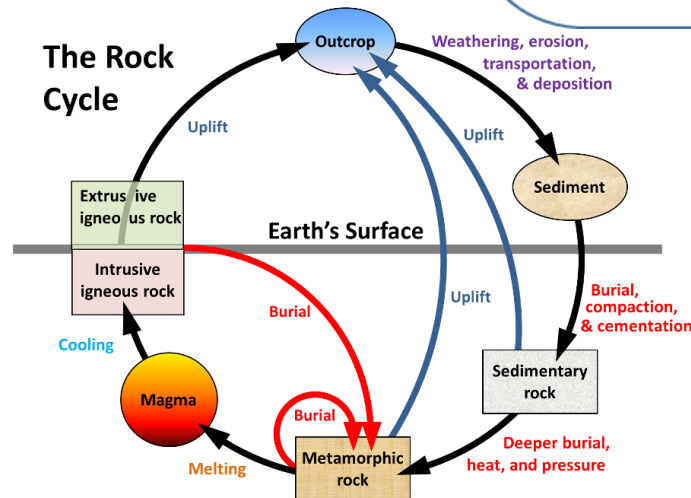
Rainwater picks up carbon dioxide from the air and becomes mildly acidic.



The water reacts with the alkaline limestone, causing it to slowly dissolve.

Landscape processes

Landscapes in the UK vary from place to place. This is mainly due to **geology**. This explains why we have such a varied landscape, with mountains and **lowlands**. The rock cycle describes how rocks are constantly being changed from one type to another. Rocks are affected by landscape processes, including **weathering** and the action of water, wind, ice, and the sea. They are **eroded** (worn away), **transported** (carried away) and eventually **deposited** (dropped). It is these processes that create our physical landscapes.



Physical landscape in the UK

River landscapes

Heavy rainfall in the mountains form powerful rivers that carve deep **v-shaped river valleys**. Rocks transported downstream by the fast flowing water erodes the **river channel**, making it wide and deep. Most of these rocks are then carried far out to sea to be deposited on the seabed. Eventually they will form sedimentary rocks.

The **River Aire** is a major river in Yorkshire, northern England. The main features of this river are waterfalls and meanders.

Coastal landscapes

During storms, powerful waves crash against the cliffs, causing them to collapse onto the **beach**. This is the process of erosion. At high tide, the sea picks up the broken rocks and carries them away. The rocks are then transported by the sea before being deposited to form a beach. Chesil Beach lies at the centre of the Jurassic Coast. It is 29-km long pebble beach that links the Isle of Portland with the mainland. This type of beach is known as a **tombolo**, a coastal landform formed by deposition. Most of the pebbles on it were swept onshore by rising sea levels after the last Ice Age. Waves now move the pebbles along the beach, mostly from west to east, due to the south-westerly winds. This process is called **longshore drift**.

Mountains and glacial landscapes

Most mountains in the UK are located in the north and west. Scotland is particularly mountainous and that is where Ben Nevis is located. Mountains are formed of tough rocks. The Scottish mountains are formed from ancient igneous and metamorphic rocks, which are very resistant to erosion. Mountains are important for many reasons. They form beautiful and spectacular landscapes, and offer opportunities for a range of adventurous activities including walking, mountain biking and climbing. The very hard rocks that form mountains have been shaped by many different processes; **freeze-thaw weathering** and glacial erosion.

Landscape- the visible features of an area of land

Uplands - land that is hilly or mountainous

Foreground - the part of a view that is at the front

Land use - what land is used for, e.g. farming or industry

Geology- the study of the rocks beneath our feet

Lowlands - flat land not much higher than sea level

Rock cycle - when one type of rock changes into another type of rock

Igneous - a type of rock formed on Earth's surface (during volcanic eruptions) or deep underground by the cooling of molten (hot, liquid) rock, e.g. granite

Sedimentary - a type of rock formed by the deposition of sediment, e.g. sandstone

Metamorphic - a type of rock that has undergone change due to intense heat and/or pressure, e.g. slate

Weathering - the breakdown of rocks at or close to Earth's surface

Erosion - wearing away and removal of small pieces of rock by, for example, a river

Transportation - the movement of rocks from an area of erosion to an area of deposition

Deposition - the dropping of rock particles, mostly in the sea

Magma - molten rock formed deep underground

Limestone pavement - a bare, rocky limestone surface with blocks of limestone separated by deep cracks

Gryke - a deep crack in the surface of limestone

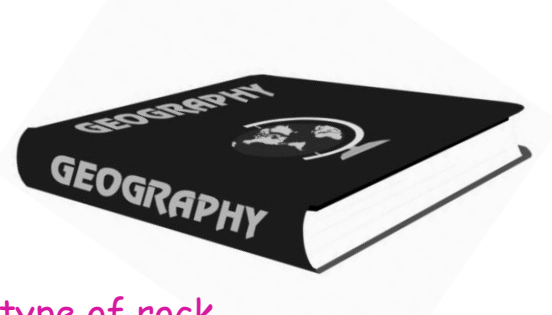
Clints - limestone blocks separated by deep cracks (grykes)

Vegetation - plants

V-shaped river valley - deep river valley shaped like a V, formed by erosion

River channel - a landform that contains a river at the bottom of a valley

Source - the start of the river



Estuary - a broad flooded valley where a river joins the sea

Tributary - a small river that joins a larger river

Confluence - the point where two rivers join

Watershed - the outer edge of a drainage basin

Mouth - the point where a river enters the sea or a lake

Drainage basin - the area of land drained by a river and its tributaries

Waterfall - a 'step' in the river over which water plunges

Gorge - narrow, steep-sided river valley

Meander - a bend in the river channel

Floodplain - flat land next to a river that floods when the river bursts its banks

Cliff - steep, often vertical rock face

Beach - sediment (e.g. sand or pebbles) deposited by the sea

Tombolo - a beach that joins an island to the mainland

Longshore drift - the movement of sediment (e.g. sand and pebbles) along the beach in the direction of the wind

Freeze-thaw weathering - where water continually freezes in the cracks of rock, making them bigger, and eventually breaks the rock apart

Corrie - a round hallow made in the side of a mountain by a glacier

Scree - small loose stones created by freeze-thaw weathering

Tarn - a small mountain lake

Glacier - a river of ice, usually occupying a valley

Ice sheet - a large layer of ice several kilometres thick

Relief - the height and shape of the land