



# UK landscapes

## TYPES OF ROCK

### Sedimentary rock

Rock examples - Sandstone and Chalk

Formation/characteristics - formed in layers; formed when smaller grains are compressed together; often contains fossils; soft rock (easily eroded).

Location - largely found in lowland areas such as, central and south West England

### Igneous rock

Rock examples - Granite and Basalt

Formation/ characteristics - formed from Magma, when it solidifies; these are very hard rocks; they contain crystals.

Location - largely found in upland areas such as, the Scottish Highlands and Dartmoor

### Metamorphic rocks

Rock examples - Slate and Schist

Formation/ characteristics - this is when Igne-



## FACTORS THAT SHAPE THE LANDSCAPE

Physical	Human
<p><b>Glaciers</b> A glacier is a large frozen river that moves slowly downhill with great force. U shaped valleys have been created as the glacier erodes through hard and soft rock landscapes. Glaciers pick up rocks from one area of the UK and can deposit (drop) these in another area of the UK, affecting the natural landscape.</p> <p><b>Rivers</b> Rivers can affect the landscape as they can erode (hydraulic action/abrasion) their way through landscapes. Rivers also transport and deposit material from highland areas to lowland areas. When a river floods material is deposited all over the flood plains.</p> <p><b>Tectonic activity</b> Igneous rocks were formed where volcanoes were located across the UK, such as in the Scottish Highlands. The volcanoes that produced this igneous rock are now extinct, but have created hills and mountains of igneous rock. Millions of years ago the UK was close to plate boundaries. As the two plates move towards each other mountains called fold mountains have been created. This is how upland landscapes like the Lake District and North Wales were formed.</p> <p><b>Weather and climate</b> The UK gets heavy rainfall on the west coast due to the prevailing wind direction, therefore with more rain there is more water in the rivers for erosion, more water to saturate the ground causing mass movement, and potentially more weathering (chemical and mechanical). Mechanical weathering is caused by water freezing and then melting. This happens more in highland areas where it is colder. Biological weathering occurs due to the action of plants and animals. This occurs more in the lowland areas where the biodiversity is greater.</p> <p><b>Mass movement</b> Slumping and sliding are examples of mass movement. This is when the land becomes saturated (wet) and this loosens the ground, causing large areas of land to suddenly and rapidly move downhill. Mass movement will occur more on the west side of the UK and in mountainous areas as this is where rainfall will be greater causing the ground to be saturated.</p> <p><b>Geology</b> Hard rocks, like igneous or metamorphic rocks are very resistant to erosion and weathering. As they don't erode easily they form highland areas (hills and mountains). Softer rocks, like sedimentary rocks are NOT very resistant to erosion and weathering. As they erode easily they form lowland areas. Where the softer rocks are eroded away, it often has a steep slope (scarp) of hard rock surrounding the soft rock that has been eroded.</p>	<p><b>Forestry</b> Large areas of forests may be cut down as the wood is needed for building material and furniture making. This can expose hillsides to rainfall and lead to mass movements of land, as the roots of the trees no longer bind the soil together. When deforestation takes place there are less trees to intercept the precipitation. This leads to water running straight of the land and into the river, causing greater river erosion. Replanting of trees (afforestation) has taken place across the UK, with a mixture of native deciduous trees and non native coniferous trees. This has resulted in a change in the trees that are present across the UK. When trees are replanted (afforestation), they are placed in rows and columns across the UK landscape. This creates an artificial look to the landscape</p> <p><b>Agriculture</b> Farming means that the natural vegetation that once existed on the landscape has to be removed so that crops can be grown (deforestation). When the same crop is grown in all the farming fields, it creates an artificial landscape, which looks the same across the landscape. (e.g. large yellow fields can often be seen as farmers grow rape-seed oil). Farming of animals like sheep and cattle has led to large areas of land being deforested and a grazed/grassy landscape is put in place. Hedges in many parts of the UK have been cut down, so that no land is wasted for farming; and so large machinery can access the fields easily.</p> <p><b>Settlements/urbanisation</b> Due to a growing population many areas of land have been removed from their natural vegetation, so that housing can be built. Roads connecting settlements have been built; areas have to be deforested and land flattened to enable the roads to be built. Artificial hills have been created, as waste is dumped in landfill sites, and then covered with soil. River and coastal management techniques have been put in place across the UK to protect urban areas of the UK. This is then affecting the ability of natural processes to take place (e.g. river walls are put in place which stop erosion taking place).</p>