

Unit 8 - Pressures on the Physical Environment

8.1 How do physical processes shape natural landscapes?

You need to know about 2 types of landscape - probably coasts and glaciated landscapes - and then to be able to apply what you know about the physical processes to examples. A likely question might be to look at one of a set of pictures and talk about the processes at work.

- **Erosion:** the wearing away and removal of material by water, ice or wind
- **Weathering:** the break down of rocks by weather, chemicals or plants
- **Transportation:** the movement of eroded or weathered material - e.g. by longshore drift
- **Deposition:** the dumping of material somewhere - e.g. stone on a beach

Landforms:

- > cliffs
- > arches and stacks
- > beaches
- > spits
- > valleys

Types of erosion:

- hydraulic action/pressure - the action of waves crashing against a cliff
- attrition - stones rubbing together and breaking up
- corrasion - stones being thrown against a cliff
- corrosion - acids and salts in water dissolving cliffs
- at the coastline the wind and rainwater can also erode cliff faces, especially after periods of sunny weather has dried out the cliff face

Types of weathering:

- physical weathering - the action of heat and water - e.g. freeze-thaw weathering or onion-skin weathering
- chemical weathering - breakdown of rocks due to chemicals - e.g. acid rain
- biological weathering - the action of plant roots or animals breaking up rocks

8.2 What are the effects of the growth of recreation and tourism?

People take more holidays today because:

- they are more affluent (richer)
- they have longer paid holidays
- improved communications - e.g. motorways
- increased car ownership (they are more mobile)
- increased awareness of other places (e.g. from TV)
- there are more retired people who live longer

Some places are effected more by increased tourism:

- **National Parks:** areas of great scenery which protect the environment and local communities and encourage leisure and tourism
- **Honeypots:** small sites which attract lots of people

Many areas attract tourists because of their natural environment. In areas like the Lake District there are cliffs, rugged mountains for waling, gentle, flat-bottomed valleys with woods for more relaxed walking (perhaps for families or older people) or bird watching, long, thin lakes for water sports or fishing. All of these physical features exist because of the glaciers which formed the landscape.

What impacts do tourists have on local communities and the environment?

- footpath erosion
- air pollution from car exhausts
- water pollution due to use of boats on lakes
- traffic congestion and parking problems
- overuse creates conflict between different users - e.g. fishermen and speed boat users
- second homes lead to rising house prices
- destruction of habitats, litter and noise
- creation of jobs, bringing money into area and leading to the multiplier effect
- make sure local services survive - e.g. bus services and local shops
- environment is protected - because people come to visit the area it is looked after better

8.3 How can recreational areas be managed?

The aim of management is to reduce negative impacts. Because National Parks and Honeypots are so attractive they attract many visitors, which can make them lose their attractiveness - the carrying capacity is exceeded.

- footpaths can be rerouted or surfaced with rocks, although this takes time and is expensive
- park and ride schemes or car parking restrictions can help deal with traffic, but cause problems for locals
- new developments can be restricted or built from local materials - but local people need jobs and new development helps to bring them: they don't want to live in the past to look good for tourists
- affordable housing can be provided for local people, but this is difficult to arrange and expensive to build
- lakes can be zoned to reduce conflicts between users, or speed limits introduced to reduce noise and erosion from speed boats, although this is unpopular with some users and can harm local businesses
- litter can be cleared up and bins provided, but both cost money and don't work on hillsides

A lot of management is trying to make development **sustainable**. This means making sure that developments that we accept today don't harm either the environment or local people in the long term.