



### Section A – Hazards

- Hazard risk is increased due to the following – population density, poverty and climate change.
- Constructive plates move apart (construct earth – think mountains) and destructive plates move together (think destroy land by squashing together).
- HICs have less harmful effects from earthquakes than LICs – Christchurch 181 people died, Nepal 9000 people died.
- HICs tend to respond to hazards quicker meaning life if returned to normal shortly – Nepal took 3 months to return power to all homes lost.
- Risks from all hazards can be reduced through monitoring (not earthquakes), prediction, protection and planning – all of which HICs are better at.
- Tropical storms form in areas of high temperature, along the equator, this area is likely to increase due to climate change.
- Typhoon Haiyan could have been better prepared for if the Philippines had more money and there was more accurate weather forecasting.
- UK Weather hazards include thunderstorms, heavy rain, drought, heat waves, heavy snow and high winds.
- Flooding in the Somerset levels was caused by 72 hours of rainfall, the local people blame the lack of dredging of rivers for huge amounts of damaging flood water.
- Evidence for climate change includes shrinking sea ice, rising sea level and changes in plant changes and animal migration patterns.
- There are natural (orbital change, solar activity and volcanic activity) and human (deforestation, CO<sub>2</sub> release and greenhouse gases production) causes of climate change.
- We can manage climate change through mitigation (changing cause – renewable energy, planting trees) or through adaptation (reducing effects – houses on stilts, GM plants)

### Section B – Living World

- Ecosystems are made up of abiotic (non-living) and biotic (living) features, they (climate, plants, animals, soil) all work together to ensure life.
- Changes in an ecosystem can mean a loss of life or a change in numbers of species.
- There are 8 world biomes (tundra, deciduous and coniferous forests, temperate grasslands, Mediterranean, desert, tropical rainforest, tropical grasslands and polar).
- Tropical rainforests are found north and south of the equator, they have a hot and wet climate and a huge range of biodiversity.
- Deforestation is caused by various human causes (logging, mineral extraction, farming and energy development). This affects the number of species, leads to soil erosion and impacts global climates (global warming).
- Deforestation is slowing down, however with sustainable management (eg selective logging and ecotourism) there can be more rainforest saved.
- Hot desert environments are very hot (40+C) and have little rainfall (less than 250mm)
- Hot deserts have opportunities for development (in the Thar desert in India there is mining, agriculture and tourism) but there are also challenges (temperatures make it difficult to work, and lack of infrastructure means poor accessibility).
- Hot deserts regions may desertification (when areas on the edge of the desert turn into desert). This might be due to overpopulation, overgrazing by animals and soil erosion. Planting trees can help – for example the Great Green Wall in the Sahel region in Africa

### Section C – UK Physical Landscapes

- Constructive waves (construct the beach) and destructive waves (destroy the beach), waves are caused by friction between the wind and the sea.
- There are 4 types of erosion that occur to both rivers and coasts - solution, hydraulic power, abrasion, and attrition.
- There are 4 types of transportation – traction, saltation, suspension and solution
- Weathering (physical, chemical and biological) and mass movement (landslides, rockfalls) also contribute to shaping the coastline
- Landforms result from coastal erosion (headlands and bays, caves, arches and stacks) and deposition (beaches and sand dunes, spits and bars). These can all be found at Swanage Bay.
- We use hard (groynes and sea walls) and soft (beach nourishment and dune regeneration) engineering to manage the coast. These can all be seen on the Holderness Coast (fastest eroding coastline in Europe due to very soft rock).

- Rivers have a long profile (how the gradient changes) and a cross profile (how the cross section changes) – they both change as the river moves downstream. Upper course = erosion, middle course = erosion and deposition, lower course = deposition
- Landforms result from river erosion (waterfalls and gorges) erosion and deposition (meanders and ox-bow lakes) and deposition (floodplains and levees). These can all be found along the River Tees.
- Flooding is caused by human factors (deforestation, urbanisation and agriculture) and physical factors (heavy rainfall, geology and relief).
- We use hard (dams, channel straightening and embankments) and soft (afforestation and restoration) engineering to manage river flooding. These can be seen at Banbury.