

## Unit 1

### Topic 1 Restless Earth

#### How and why do the Earth's tectonic plates move?

1. Explain why the earth's tectonic plates move (6).
2. Explain why earthquakes happen on conservative plate margins. You may draw a diagram to help your answer (6).
3. Using a named example, explain the economic and social impacts of a volcanic eruption (6)

#### What are the effects and management issues resulting from tectonic hazards?

4. For a named Earthquake compare the primary and secondary impacts (6).
5. Explain how developing and developed countries manage their earthquake and volcanic hazards (6).
6. Explain the role of relief efforts linked to a named tectonic hazard (6).

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### Topic 2 Changing Climate

#### How has climate changed in the past?

1. Describe how UK climate has changed over time including the Quaternary "ice ages" and since Roman times.(6)
2. Explain how natural events can cause climate change (6)
3. Describe the impact of a short term climate event (e.g. The Little ice age on people and the environment (6)
4. Examine the impact of major climatic changes e.g. the mass extinction of mega fauna at the end of the quaternary period.

#### What challenges might our future climate present us with?

5. Describe 3 possible changes to the future climate of the UK (6)
6. Explain how human activity is leading to climate change (6)
7. Explain why predictions of future temperature and sea level change may vary (6)
8. Examine the possible economic and environmental impacts of future climate change for the UK (6)
9. Examine the possible economic and environmental impacts of future climate change for a developing country (6)

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### Topic 3 Battle for the Biosphere

#### What is the value of the Biosphere?

1. Describe the distribution of the major world biomes (use the map on page 42 of your text book) (6)
2. Using named examples, examine how local and global factors influence the distribution of Biomes (6)
3. Explain how the biosphere acts as a "life support system" (6)
4. Explain the value of one Biome you have studied(6)

#### How have humans affected the biosphere and how might it be conserved?

5. Explain how human activity can lead to the direct destruction of tropical rain forests. (6)
6. Explain how climate change can lead to degradation of the biosphere. (6)
7. Evaluate 1 global scale approach to biosphere conservation (6)
8. Using named examples explain 2 different ways of conserving ecosystems. (6)
9. Using a named example, explain how sustainable management can help conserve the biosphere (6)

#### Case studies/examples

1. Amazonia(everything except 7 above)Yanomani (indigenous people) and ACRE (sustainable management)
2. CITES
3. UK National Parks (LDNP-Osprey)
4. ACRE

## **Unit 1**

### **Topic 4 Water World**

#### **Why is water important to the health of the planet?**

1. Describe how the hydrological cycle links the biosphere, atmosphere and lithosphere (6 marks).
2. Using examples, explain how climate change is likely to alter the hydrological cycle (6).
3. Explain the impact of unreliable and insufficient water supply on humans, using a case study from a vulnerable area e.g. the Sahel (6).

#### **How can water resources be managed sustainably?**

4. Using named examples, examine how human activities can disrupt water quantity and quality (6).
5. Using named examples, explain the costs and benefits of large scale water management schemes (6).
6. Using named examples, explain how small-scale intermediate technology can improve water supplies (6)

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### **Topic 6 River processes and pressures**

#### **How do river systems develop?**

1. Explain how channel shape and characteristics change along a river profile. (6)
2. Explain how landform contrasts between upper courses, mid courses and lower courses of a river (6)
3. Explain how erosion, transport and deposition in the formation of interlocking spurs and ox bow lakes. (6)
4. Explain how geology and slope processes affect the shape of river valleys and sediment load(6)

#### **Why do rivers flood and how can flooding be managed?**

5. Examine the factors effecting the time lag of 2 contrasting rivers (6)
6. Using examples explain how human activity can increase flood risk (6)
7. Using a named example evaluate the success of traditional flood defences in a developed country. (6)
8. Using a named example, explain the benefits of using soft engineering to reduce the risk of flooding (6)

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### Topic 8 Extreme Climates

#### **What are the challenges of extreme climates?**

1. Explain how polar flora and fauna have adapted to the extreme climate (6)
2. Using named examples, explain how people have adapted to life in extreme polar environments (6).
3. Explain the culture and uniqueness of peoples living in extreme environments and the value of this culture to others (6).

#### **How can extreme environments be managed and protected from the threats they face?**

1. Explain the threats to people and natural systems in extreme environments include out-migration, cultural dilution, pollution and land degradation (6).
2. Explain how climate change threatens natural systems; include melting permafrost, loss of sea ice, desertification, species migration and the impact on traditional economies (6).
3. Assess the role of local and global actions to protect extreme environments from the threat of climate change (6)