

Paper 1: Physical Geography

Exam section: Living World – Ecosystems, Rainforests and Cold Environments

Broad section	Specific content			
Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components.	Know what the following are in a food chain/food web: producers, consumers, decomposers,			
	Know what nutrient cycling is			
	For a small scale UK ecosystem know a food web and some components			
	For a small scale UK ecosystem know how humans can impact it			
	Can work out/explain how changing one impact on the ecosystem (e.g. decreasing the amount of nutrients in the soil) changes other components (e.g. knock on effects in the food chain).			
	Know what a biome is and how many there are			
	Can describe the likely characteristics of a biome based on where it is located.			
Tropical rainforest ecosystems have a range of distinctive characteristics.	Know the climate of a tropical rainforest.			
	Know the broad locations of the tropical rainforests			
	Know the layers of a tropical rainforest.			
	Know what the soils of the rainforest are like and why			
	Can describe relationships between climate, water, soils, plants, animals and people in the rainforest.			
	Explain how specific plants have adapted to the physical conditions.			
	Explain how specific animals adapted to the physical conditions.			
	Know what biodiversity is and why it is important in the rainforest.			
Deforestation has economic and environmental impacts.	Can describe from a graph how deforestation rates have increased and decreased			
	For the Malaysian rainforest know the following:			
	•• causes of deforestation with examples – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth			
	•• impacts of deforestation with examples – economic development, soil erosion, contribution to climate change.			
Tropical rainforests need to be managed to be sustainable.	Can explain why tropical rainforests are important to protect for people			
	Can explain why tropical rainforests are important to protect for the environment.			
	Can describe and assess the sustainability and effectiveness of the rainforest management strategies of: selective logging and replanting.			

	Can describe and assess the sustainability and effectiveness of the rainforest management strategies of: conservation and education.			
	Can describe and assess the sustainability and effectiveness of the rainforest management strategies of: ecotourism.			
	Can describe and assess the sustainability and effectiveness of the rainforest management strategies of: debt reduction			
Cold environments (polar and tundra) have a range of distinctive characteristics.	The broad locations of cold environments and Svalbard in particular			
	The climate of cold environments			
	Know what the soils of the cold environment are like and why			
	Can describe relationships between climate, permafrost, soils, plants, animals and people.			
	Explain how plants have adapted to the cold environment			
	Explain how animals have adapted to the cold environment			
	Know what biodiversity is and why it is important to project in cold environments.			
Development of cold environments creates opportunities and challenges.	For Svalbard know the following:			
	•• factual information on development opportunities in cold environments for: mineral extraction			
	•• factual information on development opportunities in cold environments for: tourism			
	•• factual information on development opportunities in cold environments for: fishing			
	•• factual information on development opportunities in cold environments for: energy			
	•• challenges of developing cold environments such as: extreme temperature, inaccessibility, provision of buildings and infrastructure.			
Cold environments are at risk from economic development.	Can describe the value of cold environments as wilderness areas and why these fragile environments should be protected.			
	Can describe and assess the effectiveness strategies to balance economic growth and conservation such as: use of technology			
	Can describe and assess the effectiveness strategies to balance economic growth and conservation such as: role of governments,			
	Can describe and assess the effectiveness strategies to balance economic growth and conservation such as: international agreements			
	Can describe and assess the effectiveness strategies to balance economic growth and conservation such as: conservation groups			