

Check list of topics for Paper 1

Unit 1. Topic: The challenge of natural hazards

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
• What are natural hazards?	Definition of a natural hazard.; Types of natural hazard	
• Where do earthquakes and volcanoes happen?	• Plate tectonics theory. • Location of earthquakes and volcanic eruptions • constructive, destructive and conservative plat margins.	
• What happens at tectonic plate margins?		
• What are the effects of Earthquakes? (e.g. Haiti 2010 and New Zealand 2011)	• Primary and secondary effects. • Immediate and long-term responses. • Use named examples to compare rich and poor areas.	
• How do countries respond to Earthquakes?		
• Why do people live in areas at risk of hazards? (e.g. Mount Vesuvius, Italy; Iceland)	• Reasons why people continue to live in areas at risk from a tectonic hazard	
• How can earthquakes and volcanoes be monitored, predicted and protected against?	• monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard.	

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
• How does global atmospheric circulation affect weather and climate?	pressure belts and surface winds.	
• How and where do tropical storms form?	• tropical storms (hurricanes, cyclones, typhoons). • Causes of tropical storms.	
• What is the structure of tropical storm?	• features of a tropical storm. • climate change and tropical storms.	
• How does climate change affect tropical storms?		
• Tropical storm case study (e.g. Typhoon Haiyan)	• Primary and secondary effects • Immediate and long-term responses • named example of a tropical storm.	
• How to get ready for a tropical storm?	• How monitoring, prediction, protection and planning can reduce the effects of tropical storms.	
• What are the UK's weather hazards?	• types of weather hazard experienced in the UK (e.g. 2022 heat wave).	
• Extreme weather case study (e.g. 2018 Beast from the East snow storm)	• An example of a extreme weather event in the UK • Causes • social, economic and environmental impacts	

	• how management strategies can reduce risk.	
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What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
• What is the evidence for climate change?	Evidence for climate change from the beginning of the Quaternary period to the present day.	
• What are the natural causes of climate change? • What are the human causes of climate change?	Possible causes of climate change: • natural factors - orbital changes, volcanic activity and solar output • human factors - use of fossil fuels, agriculture and deforestation.	
• How can climate change be managed?	Overview of the effects of climate change on people and the environment. Managing climate change: • mitigation - alternative energy production, carbon capture, planting trees, international agreements • adaptation - change in agricultural systems, managing water supply, reducing risk from rising sea levels.	

Unit 1. Topic: The living world

In this section, students are required to study Ecosystems, Tropical rainforests and pick Hot deserts (our school does not do Cold environments).

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
• Small ecosystem case study (eg. Pond)	• producers, consumers, decomposers, food chain, food web and nutrient cycling.	
• What factors can change an ecosystem?		
• What are biomes?	Location of deserts, tropical rainforests and other major ecosystems on a map.	

Tropical Rainforests

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
• What is the structure of tropical rainforests?	• The climate of rainforest • How plants and animals adapt .	
• Why is the rainforest being cut down? (e.g. Malaysia)	Why is deforestation happening? • subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth	

What are the impacts of deforestation?	Impacts of deforestation - economic development, soil erosion, climate change, endangered species. e.g. Malaysian rainforest and Amazon rainforest.	
- Why should tropical rainforests be protected? - How can tropical rainforests be managed sustainably?	Value of tropical rainforests to people - medicines, foods. The environment - a carbon sink, biodiversity. selective logging and replanting, conservation and education, ecotourism and international agreements about the use of tropical hardwoods, debt reduction.	

Hot Deserts

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
What is the climate in hot deserts and what plants and animals live there?	What is the climate How do plants and animals adapt to survive in the desert - cactus How plants and animals adapt to the physical conditions. Issues related to biodiversity.	
How do people use hot deserts? (e.g. Thar Desert, India)	A case study of a hot desert to illustrate: development opportunities in hot desert environments: mineral extraction, energy, farming, tourism	
What problems do people face living in the desert?	challenges of developing hot desert environments: extreme temperatures, water supply, inaccessibility.	
What is desertification?	Causes of desertification - climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion.	
How to slow down desertification?	Strategies used to reduce the risk of desertification - water and soil management, tree planting and use of appropriate technology.	

Topic: Physical landscapes in the UK

In this section, students are required to study UK physical landscapes and pick Coastal landscapes in the UK and River landscapes in the UK (our school does not do Glacial landscapes in the UK).

UK physical landscapes

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
Where are the UK's major mountainous areas and rivers?	location of major river systems and mountains in UK.	

Coastal landscapes in the UK

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
How do waves form?	Wave types and characteristics	
- What causes cliffs to collapse? - What is long shore drift?	Coastal processes: - weathering processes - mechanical, chemical - mass movement - sliding, slumping and rock falls - erosion - hydraulic power, abrasion and attrition - transportation - longshore drift - deposition - why sediment is deposited in coastal areas.	
How are coastal erosion landforms created?	- Different rock types at the coast. - landforms caused by erosion - headlands and bays, cliffs and wave cut platforms, caves, arches and stacks.	
How are coastal deposition landforms created?	landforms caused by deposition - beaches, sand dunes, spits and bars.	
- Case study of coastal landforms (e.g. Dorset).	An example of a section of coastline in the UK.	
How are coastlines protected from erosion?	The costs and benefits of the following management strategies: - hard engineering - sea walls, rock armour, gabions and groynes - soft engineering - beach nourishment and reprofiling, dune regeneration - managed retreat - coastal realignment.	
Case study of coastal management (e.g. Lyme Regis, Dorset)	An example of a coastal management scheme in the UK to show: - the reasons for management - the management strategy - the resulting effects and conflicts.	

River landscapes in the UK

What you should know? (lessons you will do)	Topic content (from the specification)	✓ Covered
How do river channels and valleys change downstream?	The long profile and cross profile of a river and its valley.	
How does erosion, transport and deposition occur in a river channel?	- erosion - hydraulic action, abrasion, attrition, solution, vertical and lateral erosion - transportation - traction, saltation, suspension and solution - deposition - why rivers deposit sediment.	
What landforms are created in river valleys?	landforms created by erosion - interlocking spurs, waterfalls and gorges.	
What river landforms are created by erosion and deposition?	- landforms created by erosion and deposition - meanders and ox-bow lakes - landforms created by deposition - levées, flood plains and estuaries.	
Case study of a UK river and its landforms using an OS map (e.g. River Tees)	An example of a river valley in the UK	
What causes flooding?	- factors affecting floods - precipitation, geology, relief and land use. - Reading a storm hydrograph.	
- What is hard engineering? - What is soft engineering?	The costs and benefits of: - hard engineering - dams and reservoirs, straightening, embankments, flood relief channels - soft engineering - flood warnings and preparation, flood plain zoning, planting trees and river restoration.	
Case study of a river flood management scheme (e.g. Banbury and River Cherwell)	An example of a flood management scheme in the UK: - why the scheme was required - the management strategy - the social, economic and environmental issues	