

PAPER 1 – PHYSICAL GEOGRAPHY

HAZARDS

- ☐ What is a natural hazard?
- ☐ What types are there?
- ☐ What factors affect the risk to natural hazards? (physical and human)
- ☐ What is the theory of plate tectonics and what makes the plates move?
- ☐ Where do we find earthquakes and volcanoes?
- ☐ What are the three types of plate margin and how do earthquakes and volcanoes happen here?
- ☐ What are the primary effects of earthquakes? (examples?)
- ☐ What are the primary effects of volcanoes? (examples?)
- ☐ What are the secondary effects of earthquakes? (examples?)
- ☐ What are the secondary effects of volcanoes? (examples?)
- ☐ What are the immediate responses to earthquakes? (examples?)
- ☐ What are the immediate responses to earthquakes? (examples?)
- ☐ What are the long-term responses to earthquakes? (examples?)
- ☐ What are the long-term responses to earthquakes? (examples?)
- ☐ How can levels of development affect impacts to hazards? (examples?)
- ☐ How can levels of development affect responses?
- ☐ Why do people continue to live near tectonic hazards?
- ☐ How can we use monitoring, prediction, protection and planning can reduce the risks from earthquakes?
- ☐ How can we use monitoring, prediction, protection and planning can reduce the risks from volcanoes?
- ☐ How does the general atmospheric circulation model function? (include pressure belts and surface winds)
- ☐ Where do tropical storms occur?
- ☐ How does the general atmospheric circulation model link to tropical storms?
- ☐ How do tropical storms form and what are the conditions needed for this?
- ☐ What is the typical structure of a tropical storm?
- ☐ How can climate change affect the distribution, frequency and intensity of tropical storms?
- ☐ What are the primary effects of tropical storms?
- ☐ What are the secondary effects of tropical storms?
- ☐ What are the immediate responses to tropical storms?
- ☐ What are the long-term responses to tropical storms?
- ☐ What are the key impacts and responses to a named example of a tropical storm?
 - ☐ How can monitoring, prediction, protection and planning can reduce the effects of tropical storms?

WEATHER HAZARDS

- ☐ What type of weather hazards do we experience in the UK?

- ☐ Use a recent example of an extreme weather event in the UK - what were the main causes?
- ☐ Use a recent example of an extreme weather event in the UK - what were the main social, economic and environmental impacts?
- ☐ What evidence is there that weather in the UK is becoming more extreme?

CLIMATE CHANGE

- ☐ What is the evidence from the beginning of the Quaternary period that climate change is occurring?
 - ☐ What are the possible human causes of climate change?
 - ☐ What are the possible physical causes of climate change?
 - ☐ How will climate change affect people and the environment? (positive and negative effects)
 - ☐ How can mitigation be used to manage climate change? (alternative energy production, carbon capture, planting trees, international agreements)
 - ☐ How can adaptation be used to manage the effects of climate change? (change in agricultural systems, managing water supply, reducing risk from rising sea levels)
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ECOSYSTEMS

- ☐ Use an example of an ecosystem to explain why the ecosystem is interdependent.
- ☐ Use an example of an ecosystem to name key producers, consumers, decomposers, food chain, food webs.
- ☐ How does nutrient cycling work?
- ☐ How can ecosystems change when affected by humans/physical changes e.g. climate change, deforestation etc.
- ☐ Where are the world's different large scale global ecosystems located?

TROPICAL RAINFORESTS

- ☐ What is the climate, soils and structure of the rainforest like?
- ☐ How does rainfall occur in the rainforest?
- ☐ What is the nutrient cycle like in the rainforest?
- ☐ How are all of these things connected in the rainforest: climate, water, soils, plants, animals and people?
- ☐ How have plants and animals adapted to live in the rainforest?
- ☐ What is biodiversity like in the rainforest and why?
- ☐ How have rates of deforestation changed over time?
- ☐ What is causing deforestation in the Amazon rainforest? (subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth)
- ☐ What are the social, economic and environmental impacts of deforestation in the Amazon? (economic development, soil erosion, contribution to climate change)

- ☐ Why are rainforests important (of value) to people and the environment? (goods and services)
- ☐ How can we use the rainforest more sustainably? (selective logging and replanting, conservation and education, ecotourism and international agreements about the use of tropical hardwoods, debt reduction)

COLD ENVIRONMENTS

- ☐ Where are the world's cold environments? (polar & tundra)
- ☐ What is the climate like in cold environments?
- ☐ What is the soil like in cold environments? (permafrost)
- ☐ What is the nutrient cycle like in cold environments?
- ☐ How are all of these things connected in cold environments: climate, water, soils, plants, animals and people?
- ☐ How have plants and animals adapted to live in cold environments?
- ☐ What is biodiversity like in cold environments and why? Why does this mean cold environments are fragile?
- ☐ What are the development opportunities in Alaska? (development opportunities in cold environments: mineral extraction, energy, fishing and tourism)
- ☐ What are the challenges of developing cold environments? (extreme temperature, inaccessibility, provision of buildings and infrastructure)
- ☐ Why are cold environments valuable as wilderness areas and why should they be protected?
- ☐ How can the balance between economic development and conservation be met in cold environments through sustainable management? (use of technology, role of governments, international agreements and conservation groups)

UK PHYSICAL ENVIRONMENTS

- ☐ What is the UK's relief like?
- ☐ Where are some of the UK's major rivers?

COASTS

- ☐ What are the different types of waves and what are their characteristics?
- ☐ What is mechanical weathering?
- ☐ What is chemical weathering?
- ☐ What is mass movement?
- ☐ What is the difference between sliding, slumping and rock falls?
- ☐ What are the types of erosion in the coastal zone?
- ☐ How does longshore drift work?
- ☐ Why is sediment deposited in the coastal zone?
- ☐ How can the geology of an area affect the way the coast forms?
- ☐ How are headlands and bays formed?
- ☐ How are cliffs and wave-cut platforms formed?

- ☐ How are caves, arches and stacks formed?
- ☐ How are beaches formed?
- ☐ How are sand dunes formed?
- ☐ How are spits and bars formed?
- ☐ Use an example of a stretch of coastline in the UK to describe the major landforms of deposition and erosion.
- ☐ What are the costs and benefits of these hard engineering strategies: sea walls, rock armour, gabions and groynes?
- ☐ What are the costs and benefits of these soft engineering strategies– beach nourishment and reprofiling, dune regeneration?
- ☐ Use an example of a coastal management scheme to explain why it was needed.
- ☐ Use an example of a coastal management scheme to describe the management strategies used.
- ☐ Use an example of a coastal management scheme to describe the effects and conflict of the scheme.

RIVERS

- ☐ How does the long profile of a river change from the upper course to the lower course?
- ☐ How does the cross profile of a river change from the upper course to the lower course? Why?
- ☐ What are the processes of erosion in rivers? (and where do we get more vertical/lateral erosion and why)
- ☐ What are the processes of transportation in a river?
- ☐ Why do rivers deposit sediment?
- ☐ How are interlocking spurs formed?
- ☐ How are waterfalls and gorges formed?
- ☐ How are meanders and ox-bow lakes formed?
- ☐ How are levees and floodplains formed?
- ☐ Use an example of a river in the UK to describe the major landforms of deposition and erosion.
- ☐ What physical factors affect flood risk?
- ☐ What human factors affect flood risk?
- ☐ What are the main features of a storm hydrograph and how do you calculate the lag time?
- ☐ What are the costs and benefits of the following hard management strategies: dams and reservoirs, straightening, embankments, flood relief channels
- ☐ What are the costs and benefits of the following soft management strategies: flood warnings and preparation, flood plain zoning, planting trees and river restoration
- ☐ Use an example of a flood management scheme in the UK to explain why the scheme was required.
- ☐ Use an example of a flood management scheme in the UK to describe what management strategy was used.
- ☐ Use an example of a flood management scheme in the UK to describe the social, economic and environmental issues caused by the scheme.

PAPER 2 – HUMAN GEOGRAPHY

URBAN CHALLENGES - THEORY

- ☐ Define urbanisation. What is the global pattern of urban change?
- ☐ How are trends in urban change different in HICs and LICs?
- ☐ How can natural increase affect urbanisation?
- ☐ How can migration (push/pull factors) affect urbanisation?
- ☐ What is a megacity? What is the global distribution of megacities like?

LONDON

- ☐ Why is London important to the UK and the wider world?
- ☐ How has national and international migration changed the character of the city?
- ☐ How has urban change created social and economic opportunities: cultural mix, recreation and entertainment, employment, integrated transport systems
- ☐ How has urban change created environmental opportunities – urban greening
- ☐ How has urban change created environmental challenges? dereliction, building on brownfield and greenfield sites, waste disposal
- ☐ How has urban change created social and economic challenges? urban deprivation, inequalities in housing, education, health and employment
- ☐ How has urban sprawl affected the rural-urban fringe? What is a commuter settlement?
- ☐ Why did the Lea Valley area of London need regenerating?
- ☐ What were the main features of the regeneration in the Lea Valley area?
- ☐ How does BedZed show evidence of urban sustainable living? Water/energy conservation, waste recycling, green space.
- ☐ How can urban transport strategies reduce traffic congestion?

RIO

- ☐ Where is Rio?
- ☐ Why is Rio regionally, nationally and internationally important?
- ☐ How have rural-urban migration and natural increase affected Rio?
- ☐ How has urban growth created social opportunities? health and education; access to resources – water supply, energy
- ☐ How has urban growth created economic opportunities? how urban industrial areas can be a stimulus for economic development
- ☐ How has urban growth has created challenges for managing urban growth – slums, squatter settlements
- ☐ How has urban growth has created challenges for providing clean water, sanitation systems and energy?
- ☐ How has urban growth has created challenges for providing access to services – health and education?
- ☐ How has urban growth has created challenges for reducing unemployment and crime?

- ☐ managing environmental issues – waste disposal, air and water pollution, traffic congestion.
 - ☐ How has the Favela Barrio project (an example of how urban planning) improving the quality of life for the urban poor? It is fully successful?
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ECONOMIC CHALLENGES - THEORY:

- ☐ What are the different ways of classifying parts of the world according to their level of economic development and quality of life? (LIC's, HIC's, NEE's)
- ☐ What are the different economic and social measures of development? (gross national income (GNI) per head, birth and death rates, infant mortality, life expectancy, people per doctor, literacy rates, access to safe water, Human Development Index (HDI).)
- ☐ What are the limitations of economic and social measures?
- ☐ How does the Demographic Transition Model link to levels of development?
- ☐ What are the physical, economic and historical causes of uneven development?
- ☐ What is the impact of uneven development on wealth and international migration?
- ☐ How does investment, industrial development, tourism, aid, intermediate technology, fair trade, debt relief and microfinance help to reduce the development gap?
- ☐ How does the growth of tourism in Kenya helps to reduce the development gap?

NIGERIA

- ☐ Where is Nigeria?
- ☐ What is the importance of the country, regionally and globally?
- ☐ What is the wider political, social, cultural and environmental context of Nigeria?
- ☐ How is Nigeria's industrial structure changed overtime?
- ☐ How has the manufacturing industry stimulated economic growth in Nigeria?
- ☐ What are the advantages and disadvantages of Shell oil in the Niger Delta?
- ☐ How has Nigeria's trading relationships changed with the wider world?
- ☐ What aid does Nigeria receive and what are the impacts of this aid?
- ☐ How has economic development impacted the environment?
- ☐ How has economic development impacted the quality of life for people in Nigeria?

UK

- ☐ How has de-industrialisation, globalisation and government policies caused economic change?
- ☐ How is the UK moving towards a post-industrial economy: development of information technology, service industries, finance, research, science and business parks?
- ☐ What are the impacts of industry on the physical environment?
- ☐ How has industry (Hanson Cement) become more environmentally sustainable?

- ☐ What are the social and economic changes in South Cambridge, a rural area experiencing population growth?
 - ☐ What are the social and economic changes in the Outer Hebrides, a rural area experiencing population decline?
 - ☐ How has road, rail, port and airports improved and developed in the UK?
 - ☐ What is the north-south divide and what are the strategies being used to try and resolve regional differences?
 - ☐ How is the UK linked to the wider world, through trade, culture, transport, and electronic communication?
 - ☐ How is the UK's economy and politics linked to the wider world through the European Union (EU) and Commonwealth?
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RESOURCES - THEORY:

- ☐ Why is food water and energy significant to economic and social well-being?
- ☐ What is the pattern of global inequalities in the supply and consumption of resources?

RESOURCES IN THE UK

- ☐ How is food provision and demand changing in the UK? (the growing demand for high-value food exports from low income countries, all-year demand for seasonal food and organic produce)
- ☐ What are the challenges and opportunities of the UK's changing food provision and demand? (larger carbon footprints due to the increasing number of 'food miles' travelled, moves towards local sourcing of food and the trend towards agribusiness)
- ☐ How does the demand for water vary across the UK?
- ☐ How is water quality and water pollution being affected and how is it being managed?
- ☐ How can we match supply and demand for water?
- ☐ What is the changing energy mix for the UK?
- ☐ Describe the reduction in coal, gas and oil in the UK?
- ☐ What are the economic and environmental issues with exploitation of energy?

ENERGY RESOURCES:

- ☐ What is the global distribution of energy consumption and supply?
- ☐ How has economic development, rising population and technology increased energy consumption?
- ☐ How does physical factors, cost of exploitation and production, technology and political factors affect energy supply?

- ☐ What are the impacts of energy insecurity? (Exploration of difficult and environmentally sensitive areas, economic and environmental costs, food production, industrial output, potential for conflict where demand exceeds supply)
- ☐ How can renewable (biomass, wind, hydro, tidal, geothermal, wave and solar) and non-renewable (fossil fuels and nuclear power) sources of energy be used to increase energy supply?
- ☐ How does the extraction of gas / shale gas have both advantages and disadvantages?
- ☐ What is sustainable energy and carbon footprints?
- ☐ How can designing homes, work places, transport sustainability, demanding reduction in energy use and use of technology to increase efficiency of fossil fuels help to conserve more energy?
- ☐ How does a local energy scheme in Chambamontera, Peru help to provide sustainable supplies of energy?