



End of Year Exams: Revision Guidance

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| Circulation | Year 13 Geography Student |
| Title | Y1 End of Year Exam Revision |
| Purpose | To provide revision information for End of Year Exams |

You will sit two papers for A-Level Geography.

Paper 1: Physical Geography

Question 1: Water and Carbon

Question 3: Coastal Systems and Landscapes

Question 5: Hazards



Paper 2: Human Geography

Question 1: Global Systems and Governance

Question 2: Changing Places

Question 4: Population and Environment



Mathematical and practical skills can also be assessed across these papers

The exam will be 2 hours and 30 minutes long and will consist of nine questions.

The paper will contain a variety of question types including short answer questions, longer answer questions and practical skills questions. You must answer all questions in the paper. You will need a black pen, pencil, ruler and calculator for the exam.

Further detail and revision materials can be found here:

Revision: [Geography Revision - PMT](#)

Papers: [A-Level Geography Past Papers - PMT](#)

All PowerPoints are in 'Files' on Teams.

WATER AND CARBON CYCLES

3.1.1.1 WATER AND CARBON CYCLES AS NATURAL SYSTEMS

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Systems concepts and their application to the water cycle – inputs, outputs, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium

Systems concepts and their application to the carbon cycle – inputs, outputs, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium

3.1.1.2 THE WATER CYCLE

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Global distribution and size of major stores of water – lithosphere, hydrosphere, cryosphere and atmosphere

Processes driving change in the magnitude of these stores over time and space, including flows: evaporation, condensation, cloud formation, causes of precipitation and cryospheric processes at hill slope, drainage basin and global scales with reference to varying timescales involved and transfers in the water cycle at hillslope scale

Drainage basins as open systems – inputs and outputs, evapo-transpiration and runoff; stores and flows, to include interception, surface, soil water, groundwater and channel storage; stemflow, infiltration, overland flow and channel flow

Concept of the water balance

Runoff variation and the flood hydrograph

Changes in the water cycle over time to include natural variation including storm events, seasonal changes

Changes in the water cycle over time to include human impact including farming practices, land use changes, water abstraction

3.1.1.3 THE CARBON CYCLE

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Global distribution and size of major carbon stores – lithosphere, hydrosphere, cryosphere, biosphere, atmosphere

Factors driving change in the magnitude of these stores over time and spaces, including flows and transfers at plant scale, sere and continental scales: photosynthesis, respiration, decomposition, combustion, carbon sequestration in oceans and sediments, weathering

Changes in the carbon cycle over time, to include natural variation (including wild fires and volcanic activity)

Changes in the carbon cycle over time, to include human impact (including hydrocarbon fuel extraction and burning, farming practices, deforestation and land use change)

The carbon budget and the impact of the carbon cycle on land, oceans and atmosphere, including global climate

| 3.1.1.4 WATER, CARBON, CLIMATE AND LIFE ON EARTH | R | A | G |
|--|----------|----------|----------|
| The role of water and carbon stores and cycles in supporting life on Earth with particular reference to climate | | | |
| The relationship between the water cycle and carbon cycle in the atmosphere | | | |
| The role of feedbacks within and between cycles and their link to climate change and implications for life on Earth | | | |
| Human interventions in the carbon cycle designed to influence carbon transfers and mitigate climate change | | | |
| 3.1.1.5 QUANTITATIVE AND QUALITATIVE SKILLS | R | A | G |
| Quantitative and relevant qualitative skills, within the theme of water and carbon cycles, including simple mass balance, unit conversion; analysis and presentation of field data | | | |
| 3.1.1.6 CASE STUDIES | R | A | G |
| Case study of a tropical rainforest (TRF) to illustrate themes in water and carbon cycles | | | |
| Case study of a TRF – relationship to environmental change and human activity | | | |
| Case study of a river catchment at a local scale – to illustrate and analyse the key themes above and engage with field data | | | |
| Case study of a river catchment at a local scale – consider the impact of precipitation on stores and transfers and implications for sustainable water supply and/or flooding | | | |

COASTAL SYSTEMS AND LANDSCAPES (OPTION)

| 3.1.3.1 COASTS AS NATURAL SYSTEMS | R | A | G |
|---|----------|----------|----------|
| Systems concepts and their application to the development of coastal landscapes – inputs, outputs, energy, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium | | | |
| The concepts of landform and landscape and how related landforms combine to form characteristic landscapes | | | |
| 3.1.3.2 SYSTEMS AND PROCESSES | R | A | G |
| Sources of energy in coastal environments: winds, waves (constructive and destructive), currents and tides | | | |
| Low energy and high energy coasts | | | |
| Sediment sources, cells and budgets | | | |
| Geomorphological processes: weathering, erosion, transportation, deposition | | | |
| Distinctively coastal processes: marine: erosion – hydraulic action, wave quarrying, corrosion/abrasion, cavitation, solution, attrition; transportation: traction, suspension (longshore/littoral drift) and deposition | | | |
| Distinctively coastal processes: sub-aerial: weathering, mass movement and runoff | | | |
| 3.1.3.3 COASTAL LANDSCAPE DEVELOPMENT (UK EXAMPLES & BEYOND THE UK) | R | A | G |
| Origin and development of landforms and landscapes of coastal erosion: cliffs and wave cut platforms, cliff profile features including caves, arches and stacks; factors and processes in their development | | | |
| Origin and development of landforms and landscapes of coastal deposition: beaches, simple and compound spits, tombolos, offshore bars, barrier beaches and islands and sand dunes; factors and processes in their development | | | |
| Estuarine mudflat/saltmarsh environments and associated landscapes; factors and processes in their development | | | |
| Eustatic, isostatic and tectonic sea level change: major changes in sea level in the last 10,000 years | | | |
| Coastlines of emergence and submergence. Origin and development of associated landforms: raised beaches, marine platforms; rias, fjords, Dalmatian coasts | | | |
| Recent and predicted climatic change and potential impact on coasts | | | |
| The relationship between process, time, landforms and landscape in coastal settings | | | |
| 3.1.3.4 COASTAL MANAGEMENT | R | A | G |
| Human intervention in coastal landscapes. Traditional approaches to coastal flood and erosion risk: hard and soft engineering | | | |
| Sustainable approaches to coastal flood risk and coastal erosion management: shoreline management/integrated coastal zone management | | | |

| 3.1.3.5 QUANTITATIVE AND QUALITATIVE SKILLS | R | A | G |
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| Quantitative and relevant qualitative skills, applicable within the theme landscape systems including: observation skills, measurement and geospatial mapping skills, data manipulation and statistical skills applied to field measurements | | | |
| 3.1.3.6 CASE STUDIES | R | A | G |
| Case study(ies) of coastal environment(s) at a local scale to illustrate and analyse fundamental coastal processes, their landscape outcomes as set out above and engage with field data | | | |
| Case study(ies) of coastal environment(s) at a local scale to illustrate and analyse challenges represented in their sustainable management | | | |
| Case study of a contrasting coastal landscape beyond the UK to illustrate and analyse how it presents risks and opportunities for human occupation and development | | | |
| Case study of a contrasting coastal landscape beyond the UK to illustrate and evaluate human responses of resilience, mitigation and adaptation | | | |

HAZARDS (OPTION)

3.1.5.1 THE CONCEPT OF HAZARD IN A GEOGRAPHICAL CONTEXT

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Nature, forms and potential impacts of natural hazards (geophysical, atmospheric and hydrological)

Hazard perception and its economic and cultural determinants

Characteristic human responses – fatalism, prediction, adjustment/adaptation, mitigation, management, risk sharing – and their relationship to hazard incidence, intensity, magnitude, distribution and level of development

The Park model of human response to hazards

The Hazard Management Cycle

3.1.5.2 PLATE TECTONICS

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Earth structure and internal energy sources

Plate tectonic theory of crustal evolution: tectonic plates; plate movement; gravitational sliding; ridge push, slab pull; convection current and seafloor spreading

Destructive plate margins: characteristic processes: seismicity and vulcanicity; associated landforms: young fold mountains, deep sea trenches and island arcs, volcanoes

Constructive plate margins: characteristic processes: seismicity and vulcanicity; associated landforms: rift valleys, ocean ridges, volcanoes

Conservative plate margins: characteristic processes: seismicity

Magma plumes and their relationship to plate movement

3.1.5.3 VOLCANIC HAZARDS

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The nature of vulcanicity and its relation to plate tectonics: forms of volcanic hazard: nuée ardentes, lava flows, mudflows, pyroclastic and ash fallout, gases/acid rain, tephra

The nature of vulcanicity and its relation to plate tectonics: spatial distribution, magnitude, frequency, regularity and predictability of volcanic events

Impacts: primary/secondary, environmental, social, economic, political

Short and long-term responses: risk management designed to reduce the impact of the hazard through preparedness, mitigation, prevention and adaptation

Impacts and human responses as evidenced by a recent volcanic event

| 3.1.5.4 SEISMIC HAZARDS | R | A | G |
|---|----------|----------|----------|
| The nature of seismicity and its relation to plate tectonics: forms of seismic hazard: earthquakes, shockwaves, tsunamis, liquefaction, landslides | | | |
| The nature of seismicity and its relation to plate tectonics: spatial distribution, randomness, magnitude, frequency, regularity, predictability of hazard events | | | |
| Impacts: primary/secondary, environmental, social, economic, political | | | |
| Short and long-term responses: risk management designed to reduce the impact of the hazard through preparedness, mitigation, prevention and adaptation | | | |
| Impacts and human responses as evidenced by a recent seismic event | | | |
| 3.1.5.5 STORM HAZARDS | R | A | G |
| The nature of tropical storms and their underlying causes: forms of storm hazard: high winds, storm surges, coastal flooding, river flooding and landslides | | | |
| The nature of tropical storms and their underlying causes: spatial distribution, magnitude, frequency, regularity, predictability of storm events | | | |
| Impacts: primary/secondary, environmental, social, economic, political | | | |
| Short and long-term responses: risk management designed to reduce the impact of the hazard through preparedness, mitigation, prevention and adaptation | | | |
| Impacts and human responses as evidenced by two recent tropical storms in contrasting areas of the world | | | |
| 3.1.5.6 FIRES IN NATURE | R | A | G |
| Nature of wildfires. Conditions favouring intense wildfires: vegetation type, fuel characteristics, climate and recent weather and fire behaviour. Causes of fires: natural and human agency | | | |
| Impacts: primary/secondary, environmental, social, economic, political | | | |
| Short and long-term responses: risk management designed to reduce the impact of the hazard through preparedness, mitigation, prevention and adaptation | | | |
| Impacts and human responses as evidenced by a recent wildfire event | | | |
| 3.1.5.7 CASE STUDIES | R | A | G |
| Case study of a multi-hazardous environment beyond the UK: analysis of the nature of the hazards and the social, economic and environmental risks presented | | | |
| Case study of a multi-hazardous environment beyond the UK: analysis of how human qualities and responses such as resilience, adaptation, mitigation and management contribute to its continuing human occupation | | | |
| Case study at a local scale of a specified place in a hazardous setting: the physical nature of the hazard | | | |
| Case study at a local scale of a specified place in a hazardous setting: analysis of how the economic, social and political character of its community reflects the presence of the hazard and the community's response to the risk | | | |

GLOBAL SYSTEMS AND GLOBAL GOVERNANCE

| 3.2.1.1 GLOBALISATION | R | A | G |
|---|----------|----------|----------|
| Dimensions of globalisation: flows of capital, labour, products, services and information; global marketing; patterns of production, distribution and consumption | | | |
| Factors in globalisation: the development of technologies, systems and relationships, including financial, transport, security, communications, management and information systems and trade agreements | | | |
| 3.2.1.2 GLOBAL SYSTEMS | R | A | G |
| Form and nature of economic, political, social and environmental interdependence in the contemporary world | | | |
| Issues associated with interdependence including how: unequal flows of people, money, technology within global systems can sometimes act to promote stability, growth and development but can also cause inequalities, conflicts and injustices for people and places | | | |
| Issues associated with interdependence including how: unequal power relations enable some states to drive global systems to their own advantage and to directly influence geopolitical events, while others are only able to respond or resist in a constrained way | | | |
| 3.2.1.3 INTERNATIONAL TRADE AND ACCESS TO MARKETS | R | A | G |
| Global features and trends in the volume and pattern of international trade and investment associated with globalisation | | | |
| Trading relationships and patterns between large highly developed economies (HDEs) such as the United States, the European Union, emerging major economies (EMEs) such as China and India and smaller, less developed economies (LDEs) such as those in sub-Saharan Africa, southern Asia and Latin America | | | |
| Differential access to markets associated with levels of economic development and trading agreements and its impacts on economic and societal well-being | | | |
| The nature and role of transnational corporations (TNCs), including their spatial organisation, production, linkages, trading and marketing patterns | | | |
| Detailed reference to a specific TNC including its impacts on those countries in which it operates | | | |
| World trade in at least one food commodity or one manufacturing product | | | |
| Analysis and assessment of the geographical consequences of global systems to specifically consider how international trade and variable access to markets underly and impacts on students' and other people's lives across the globe | | | |

| 3.2.1.4 GLOBAL GOVERNANCE | R | A | G |
|---|----------|----------|----------|
| The emergence and developing role of norms, laws and institutions in regulating and reproducing global systems | | | |
| Issues associated with attempts at global governance, including how agencies, including the UN in the post-1945 era, can work to promote growth and stability but may also exacerbate inequalities and injustice | | | |
| Issues associated with attempts at global governance, including how interactions between the local, regional, national, international and global scales are fundamental to understanding global governance | | | |
| 3.2.1.5 THE 'GLOBAL COMMONS' | R | A | G |
| The concept of the global commons. The rights of all to the benefits of the global commons. Acknowledgement that the rights of all people to sustainable development must acknowledge the need to protect the global commons | | | |
| An outline of the contemporary geography, including climate, of Antarctica (including the Southern Ocean as far north as the Antarctic Convergence) to demonstrate its role as a common and illustrate its vulnerability to global economic pressures and environmental change | | | |
| Threats to Antarctica arising from: climate change, fishing and whaling, the search for mineral resources, tourism and scientific research | | | |
| Critical appraisal of the developing governance of Antarctica: <ul style="list-style-type: none"> • International government organisations to include: United Nations (UN) agencies such as the United National Environment Programme (UNEP) and the International Whaling Commission • Developing governance: <ul style="list-style-type: none"> ○ The Antarctic Treaty (1959), the Protocol on Environmental Protection to the Antarctic Treaty (1991) ○ IWC Whaling Moratorium (1982) – their purpose, scope and systems for inspection and enforcement | | | |
| The role of NGOs in monitoring threats and enhancing protection of Antarctica | | | |
| Analysis and assessment of the geographical consequences of global governance for citizens and places in Antarctica and elsewhere to specifically consider how global governance underlies and impacts on students' and other people's lives across the globe | | | |
| 3.2.1.6 GLOBALISATION CRITIQUE | R | A | G |
| The impacts of globalisation to consider the benefits of growth, development, integration, stability against the costs of inequalities, injustice, conflict and environmental impact | | | |

CHANGING PLACES

| 3.2.2.1 NATURE AND THE IMPORTANCE OF PLACES | R | A | G |
|--|----------|----------|----------|
| The concept of place and the importance of place in human life and experience | | | |
| Insider and outsider perspectives on place | | | |
| Categories of place: near places and far places; experienced places and media places | | | |
| Factors contributing to the character of places: endogenous: location, topography, physical geography, land use, built environment and infrastructure, demographic and economic characteristics | | | |
| Factors contributing to the character of places: exogenous: relationships with other places | | | |
| 3.2.2.2(1) RELATIONSHIPS AND CONNECTIONS | R | A | G |
| The impact of relationships and connections on people and place with a particular focus on either changing demographic and cultural characteristics or economic change and social inequalities | | | |
| How the demographic, socio-economic and cultural characteristics of places are shaped by shifting flows | | | |
| The characteristics and impacts of external forces operating at different scales, either government or decisions of TNCS or international or global institutions | | | |
| How past and present connections, within and beyond localities, shape places and embed them in regional, national, global scales | | | |
| 3.2.2.2(2) MEANING AND REPRESENTATION | R | A | G |
| How humans perceive and form attachments to places and represent the world to others, including the way in which place meanings are bound up with different identities (etc.) | | | |
| How external agencies and community or local groups make attempts to create specific place-meanings and shape actions and behaviours | | | |
| How places may be represented in different forms in diverse media that give contrasting images to that presented formally or statistically | | | |
| How past and present processes of development influence social and economic characteristics of places <i>and are implicit in present meanings</i> | | | |
| 3.2.2.3 QUANTITATIVE AND QUALITATIVE SKILLS | R | A | G |
| Use of geospatial data to investigate and present place characteristics | | | |
| Qualitative approaches involved in representing place | | | |
| Analysing critically the impacts of different media on place meanings and perceptions | | | |
| Development of critical perspectives on the quantitative/qualitative data categories and approaches | | | |

| 3.2.2.4 - PLACE STUDIES | R | A | G |
|---|----------|----------|----------|
| Local place study, exploring the developing character of a place local to the home or study centre | | | |
| Local place study sources to represent this place in the past and present. Sources must include: qualitative (could be photographs, text from varied media, audio-visual media, artistic representations, oral sources, such as interview, reminiscences, songs etc) and quantitative data (could be statistics, such as census data, maps, geo-located data, geospatial data, including geographic information systems (GIS) applications) | | | |
| Local place study - people's lived experience of the place in the past and at present | | | |
| Local place study - either changing demographic and cultural characteristics or economic change and social inequalities | | | |
| Contrasting place study, exploring the developing character of a contrasting and distant place | | | |
| Distant place study sources to represent this place in the past and present. Sources must include: qualitative (could be photographs, text from varied media, audio-visual media, artistic representations, oral sources, such as interview, reminiscences, songs etc) and quantitative data (could be statistics, such as census data, maps, geo-located data, geospatial data, including geographic information systems (GIS) applications) | | | |
| Distant place study - people's lived experience of the place in the past and at present | | | |
| Distant place case study - either changing demographic and cultural characteristics or economic change and social inequalities | | | |

POPULATION AND THE ENVIRONMENT (OPTION)

| 3.2.4.1 INTRODUCTION | R | A | G |
|---|----------|----------|----------|
| The environmental context for human population characteristics and change | | | |
| Key elements in the physical environment: climate, soils, resource distribution including water supply | | | |
| Key population parameters: distribution, density, numbers, change | | | |
| Key role of development processes | | | |
| Global patterns of population numbers, densities and change rates | | | |
| 3.2.4.2 ENVIRONMENT AND POPULATION | R | A | G |
| Global and regional patterns of food production and consumption | | | |
| Agricultural systems and productivity. Relationship with key physical environmental variables – climate and soils | | | |
| Characteristics and distribution of two major climatic types to exemplify relationships between climate and human activities and numbers | | | |
| Climate change as it affects agriculture | | | |
| Characteristics and distribution of two key zonal soils to exemplify relationship between soils and human activities, especially agriculture | | | |
| Soil problems and their management as they relate to agriculture: soil erosion, waterlogging, salinisation, structural deterioration | | | |
| Strategies to ensure food security | | | |
| 3.2.4.3 ENVIRONMENT, HEALTH AND WELL-BEING | R | A | G |
| Global patterns of health, mortality and morbidity | | | |
| Economic and social development and the epidemiological transition | | | |
| The relationship between environmental variables e.g. climate, topography (drainage) and incidence of disease | | | |
| Air quality and health | | | |
| Water quality and health | | | |
| The global prevalence, distribution, seasonal incidence of one specified biologically transmitted disease e.g. malaria; its links to physical and socio-economic environments including impacts of environmental variables on transmission vectors. Impact on health and well-being. Management and mitigation strategies | | | |
| The global prevalence and distribution of one specified non-communicable disease, e.g. a specific type of cancer, coronary heart disease, asthma; its links to physical and socio-economic environment including impact of lifestyles. Impact on health and well-being. Management and mitigation strategies | | | |
| Role of international agencies and NGOs in promoting health and combating disease at the global scale | | | |

| 3.2.4.4 POPULATION CHANGE | R | A | G |
|--|----------|----------|----------|
| Factors in natural population change: the demographic transition model, key vital rates, age-sex composition; cultural controls | | | |
| Models of natural population change, and their application in contrasting physical and human settings | | | |
| Concept of the demographic dividend | | | |
| International migration: refugees, asylum seekers and economic migrants; environmental and socio-economic causes, processes. Demographic, environmental, social, economic, health and political implications of migration | | | |
| 3.2.4.5 PRINCIPLES OF POPULATION ECOLOGY AND THEIR APPLICATION TO HUMAN POPULATIONS | R | A | G |
| Population growth dynamics. Concepts of overpopulation, underpopulation and optimum population | | | |
| Implications of population size and structure for the balance between population and resources; the concepts of carrying capacity and ecological footprint and their implications | | | |
| Population, resources and pollution model: positive and negative feedback | | | |
| Perspectives on population growth and implications: Malthusian, neo-Malthusian and alternatives such as associated with Boserup and Simon | | | |
| 3.2.4.6 - GLOBAL POPULATION FUTURES | R | A | G |
| Health impacts of global environmental change: ozone depletion – skin cancer, cataracts; climate change – thermal stress, emergent and changing distribution of vector borne diseases, agricultural productivity and nutritional standards | | | |
| Prospects for the global population. Projected distributions. Critical appraisal of future population-environment relationships | | | |
| 3.2.4.7 - CASE STUDIES | R | A | G |
| Case study of a country/society experiencing specific patterns of overall population change – increase or decrease – to illustrate and analyse the character, scale and patterns of change, relevant environmental and socio-economic factors and implications for the country/society | | | |
| Case study of a specified local area to illustrate and analyse the relationship between place and health related to its physical, socio-economic character and the experience and attitudes of its populations | | | |