Geography A Level

List of what will be on the exam is here [Pre-release summer 2022 AQA doc]

Full Spec Overview

RED-removed. BLACK-revise! GREEN-added

AQA Advice: [Students and teachers should consider how to focus their revision of other non-listed parts of the specification, for example to review whether other topics may provide knowledge which helps understanding in relation to the areas being tested in 2022.

The information contained in this document does not identify *all* possible opportunities where students may apply their knowledge and understanding (AO2). This means that students' responses to individual questions may draw upon other areas of specification content where relevant and credit will be given for this, where appropriate.

There are a few points to be considered when using this information to help focus revision:

- The aims of the specification stipulate that students are encouraged to: "*apply geographical knowledge, understanding, skills and approaches in a rigorous way to a range of geographical questions and issues*." In particular, this is important when it comes to accessing higher levels of the mark scheme.
- It is good practice in many areas of the specification for the content to be taught through the required case studies (eg local and distant place studies). It is therefore essential that students include case study knowledge as part of their revision in all units studied.
- It is important to remind students of the range of ways that data can be presented when looking at Geographical skills (eg different types of bar charts and line graphs), that are assessed in some questions – such as 6 mark AO3 questions.
- Opportunities to engage with qualitative and quantitative data as outlined in the specification should be considered in relation to the highlighted AO1 content (eg "qualitative approaches involved in representing place, and to analysing critically the impacts of different media on place meanings and perceptions").
- • Questions will be included in the assessment that draw from links made within units, and across units. It is important that students consider this still as part of their revision.

3.1 Physical geography

3.1.1. Water and carbon cycles

3.1.1.1 Water and carbon cycles as natural systems

Systems in physical geography: systems concepts and their application to the water and carbon cycles inputs – outputs, energy, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium.

3.1.1.2 The water cycle

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 and transfers: evaporation, condensation, cloud formation, causes of precipitation and cryospheric processes at hill slope, drainage basin and global scales with reference to varying timescales involved. Drainage basins as open systems – inputs and outputs, to include precipitation, evapotranspiration and runoff; stores and flows, to include interception, surface, soil water, groundwater and channel storage; stemflow, infiltration overland flow, and channel flow. Concept of water balance. Runoff variation and the flood hydrograph. Changes in the water cycle over time to include, natural variation including storm events, seasonal changes and human impact including farming practices, land use change and water abstraction.

3.1.1.3 The carbon cycle

Global distribution, and size of major stores of carbon – lithosphere, hydrosphere, cryosphere biosphere, atmosphere. Factors driving change in the magnitude of these stores over time and space, including flows and transfers at plant, 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, volcanic activity) and human impact (including hydrocarbon fuel extraction and burning, farming practices, deforestation, land use changes). The carbon budget and the impact of the carbon cycle upon land, ocean and atmosphere, including global climate.

3.1.1.4 Water, carbon, climate and life on Earth

The key role of the carbon and water 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 the impacts of climate change.

3.1.1.5 Quantitative and qualitative skills Students must engage with a range of quantitative and relevant qualitative skills, within the theme water and carbon cycles. Students must specifically understand simple mass balance, unit conversions and the analysis and presentation of field data.

3.1.1.6 Case studies

Case study of a tropical rainforest setting to illustrate and analyse key themes in water and carbon cycles and their relationship to environmental change and human activity.

Case study of a river catchment(s) at a local scale to illustrate and analyse the key themes above, engage with field data and consider the impact of precipitation upon drainage basin stores and transfers and implications for sustainable water supply and/or flooding3.2.5.7 Case studies

**Although there are no case studies required for WCC, you will still have to refer to specific WCC details in the 20 mark question. e.g. Human interventions in the carbon cycle - name specific examples and mitigation strategies.*

3.1.3 Coastal systems and landscapes

3.1.3.1 Coasts as natural systems

Systems in physical geography: 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 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, mass movement, erosion, transportation and deposition. Distinctively coastal processes: marine: erosion – hydraulic action, wave quarrying, corrasion/ abrasion, cavitation, solution, attrition; transportation: traction, suspension (longshore/littoral drift) and deposition; sub-aerial weathering, mass movement and runoff.

3.1.3.3 Coastal landscape development

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 landscapes in coastal settings.

3.1.3.4 Coastal management 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
Students must engage with a range of quantitative and relevant qualitative skills, within the theme landscape systems. These should include observation skills, measurement and geospatial mapping skills and data manipulation and statistical skills applied to field measurements.

3.1.3.6 Case studies
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 and 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 and evaluate human responses of resilience, mitigation and adaptation.

3.1.5 Hazards

3.1.5.1 The concept of hazard in a geographical context

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.

**moved to wildfires*

3.1.5.2 Plate tectonics

Earth structure and internal energy sources. Plate tectonic theory of crustal evolution: tectonic plates; plate movement; gravitational sliding; ridge push, slab pull; convection currents and seafloor spreading. Destructive, constructive and conservative plate margins. Characteristic processes: seismicity and vulcanicity. Associated landforms: young fold mountains, rift valleys, ocean ridges, deep sea trenches and island arcs, volcanoes. Magma plumes and their relationship to plate movement.

3.1.5.3 Volcanic hazards

The nature of vulcanicity and its relation to plate tectonics: forms of volcanic hazard: nuées ardentes, lava flows, mudflows, pyroclastic and ash fallout, gases/acid rain, tephra. Spatial distribution, magnitude, frequency, regularity and predictability of hazard events. Impacts: primary/secondary, environmental, social, economic, political. Short and long-term responses: risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation. Impacts and human responses as evidenced by a recent volcanic event. *(Volcanic Case Study)*

3.1.5.4 Seismic hazards The nature of seismicity and its relation to plate tectonics: forms of seismic hazard: earthquakes, shockwaves, tsunamis, liquefaction, landslides. 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 impacts of the hazard through preparedness, mitigation, prevention and adaptation. Impacts and human responses as evidenced by a recent seismic event. *(Seismic Case Study)*

3.1.5.5 Storm hazards The nature of tropical storms and their underlying causes. Forms of storm hazard: high winds, storm surges, coastal flooding, river flooding and landslides. Spatial distribution, 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 impacts 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. *(2 X Tropical Storm Case Studies)*

3.1.5.6 Fires in nature

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

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 impacts of the hazard through preparedness, mitigation, prevention and adaptation. Impact and human responses as evidenced by a recent wild fire event. *(Wildfire Case Study)*

3.1.5.7 Case studies Case study of a multi-hazardous environment beyond the UK to illustrate and analyse the nature of the hazards and the social, economic and environmental risks presented, and 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 to illustrate the physical nature of the hazard and analyse how the economic, social and political character of its community reflects the presence and impacts of the hazard and the community's response to the risk.

3.1 Human geography

3.2.1 Global systems and global governance

3.2.1.1 Globalisation 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

Issues associated with interdependence including how:
• unequal flows of people, money, ideas and 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
• 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 more constrained way.

3.2.1.3 International trade and access to markets
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 such as the United States, the European Union, emerging major economies such as China and India and smaller, less developed economies 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, with a detailed reference to a specified TNC and 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 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 injustices
• interactions between the local, regional, national, international and global scales are fundamental to understanding global governance.

3.2.1.5 The 'global commons'
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 also acknowledge the need to protect the global commons.

3.2.1.5.1 Antarctica as a global common
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 global 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. International government organisations to include United Nations (UN) agencies such as United Nations Environment Programme (UNEP) and the International Whaling Commission. 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
The impacts of globalisation to consider the benefits of growth, development, integration, stability against the costs in terms of inequalities, injustice, conflict and environmental impact.

3.2.1.7 Quantitative and qualitative skills Students must engage with quantitative and qualitative approaches across the theme as a whole.

3.2.2 Changing Places

3.2.2.1 The nature and importance of places

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.
- Exogenous: relationships with other places.

3.2.2.2 Changing places – relationships, connections, meaning and representation

In relation to the local place within which students live or study and then at least one further contrasting place and encompassing local, regional, national, international and global scales:

- the ways in which the following factors: relationships and connections, meaning and representation, affect continuity and change in the nature of places and our understanding of place and
- the ways in which students' own lives and those of others are affected by continuity and change in the nature of places and our understanding of place.

3.2.2.2.1 Relationships and connections

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 of people, resources, money and investment, and ideas at all scales from local to global.
- The characteristics and impacts of external forces operating at different scales from local to global, including either government policies or the decisions of transnational corporations or the impacts of international or global institutions.
- How past and present connections, within and beyond localities, shape places and embed them in the regional, national, international and global scales.

3.2.2.2.2 Meaning and representation

The importance of the meanings and representations attached to places by people with a particular focus on people's lived experience of place in the past and at present.

- How humans perceive, engage with and form attachments to places and how they present and represent the world to others, including the way in which everyday place meanings are bound up with different identities, perspectives and experiences.
- How external agencies, including government, corporate bodies and community or local groups make attempts to influence or create specific place-meanings and thereby shape the actions and behaviours of individuals, groups, businesses and institutions.

• How places may be represented in a variety of different forms such as advertising copy, tourist agency material, local art exhibitions in diverse media (eg film, photography, art, story, song etc) that often give contrasting images to that presented formally or statistically such as cartography and census data.
• How both past and present processes of development can be seen to influence the social and economic characteristics of places and so be implicit in present meanings.

3.2.2.3 Quantitative and qualitative skills Students must engage with a range of quantitative and qualitative approaches across the theme as a whole. Quantitative data, including the use of geospatial data, must be used to investigate and present place characteristics, particular weight must be given to qualitative approaches involved in representing place, and to analysing critically the impacts of different media on place meanings and perceptions. The use of different types of data should allow the development of critical perspectives on the data categories and approaches.

3.2.2.4 Place studies
Local place study exploring the developing character of a place local to the home or study centre.
Contrasting place study exploring the developing character of a contrasting and distant place. Place studies must apply the knowledge acquired through engagement with prescribed specification content and thereby further enhance understanding of the way students' own lives and those of others are affected by continuity and change in the nature of places. Sources must include qualitative and quantitative data to represent places in the past and present.
Both place studies must focus equally on:
• people's lived experience of the place in the past and at present and either
• changing demographic and cultural characteristics **or**
• economic change and social inequalities.

Suitable data sources could include:
• statistics, such as census data
• maps • geo-located data
• geospatial data, including geographic information systems (GIS) applications
• photographs
• text, from varied media
• audio-visual media
• artistic representations
• oral sources, such as interviews, reminiscences, songs etc.

3.2.3 Contemporary urban environments

3.2.3.1 Urbanisation
Urbanisation and its importance in human affairs. Global patterns of urbanisation since 1945. Urbanisation, suburbanisation, counter-urbanisation, Urban resurgence. The emergence of megacities and world cities and their role in global and regional economies.

Economic, social, technological, political and demographic processes associated with urbanisation and urban growth.

Urban change: deindustrialisation, decentralisation, rise of service economy. Urban policy and regeneration in Britain since 1979.

3.2.3.2 Urban forms

Contemporary characteristics of mega/world cities. Urban characteristics in contrasting settings. Physical and human factors in urban forms. Spatial patterns of land use, economic inequality, social segregation and cultural diversity in contrasting urban areas, and the factors that influence them.

New urban landscapes: town centre mixed developments, cultural and heritage quarters, fortress developments, gentrified areas, edge cities. The concept of the post-modern western city.

3.2.3.3 Social and economic issues associated with urbanisation

Issues associated with economic inequality, social segregation and cultural diversity in contrasting urban areas.

Strategies to manage these issues.

3.2.3.4 Urban climate

The impact of urban forms and processes on local climate and weather.

Urban temperatures: the urban heat island effect. Precipitation: frequency and intensity. Fogs

Thunderstorms in urban environments.

Wind: the effects of urban structures and layout on wind speed, direction and frequency. Air quality: particulate and photo-chemical pollution.

Pollution reduction policies.

3.2.3.5 Urban drainage

Urban precipitation, surfaces and catchment characteristics; impacts on drainage basin storage areas; urban water cycle: water movement through urban catchments as measured by hydrographs.

Issues associated with catchment management in urban areas. The development of sustainable urban drainage systems (SUDS).

River restoration and conservation in damaged urban catchments with reference to a specific project. Reasons for and aims of the project; attitudes and contributions of parties involved; project activities and evaluation of project outcomes.

3.2.3.6 Urban waste and its disposal

Urban physical waste generation: sources of waste – industrial and commercial activity, personal consumption. The environmental impacts of alternative approaches to waste disposal: unregulated, recycling, recovery, incineration, burial, submergence and trade.

Comparison of incineration and landfill approaches to waste disposal in relation to a specified urban area.

3.2.3.7 Other contemporary urban environmental issues

Environmental problems in contrasting urban areas: atmospheric pollution, water pollution and dereliction.

Strategies to manage these environmental problems.

3.2.3.8 Sustainable urban development

Impact of urban areas on local and global environments. Ecological footprint of major urban areas.

Dimensions of sustainability: natural, physical, social and economic. Nature and features of sustainable cities. Concept of liveability.

Contemporary opportunities and challenges in developing more sustainable cities. Strategies for developing more sustainable cities.

3.2.3.9 Case studies
Case studies of two contrasting urban areas to illustrate and analyse key themes set out above, to include:

- patterns of economic and social well-being
- the nature and impact of physical environmental conditions

with particular reference to the implications for environmental sustainability, the character of the study areas and the experience and attitudes of their populations.

Geographic skills

3.4.2.1 Core skills
Use and annotation of illustrative and visual material, base maps, sketch maps, OS maps (at a variety of scales) diagrams, graphs, field sketches, photographs, geospatial data, geo located and digital imagery.
Literacy - use of factual text and discursive/creative material and coding techniques when analysing text.
Numeracy - use of number, measure and measurement.
Use of overlays, both physical and electronic.
Questionnaire and interview techniques.

3.4.2.2 Cartographic skills
• Atlas maps.
• Weather maps – including synoptic charts (if applicable).
• Maps with located proportional symbols.
• Maps showing movement – flow lines, desire lines and trip lines.
• Maps showing spatial patterns – choropleth, isoline and dot maps.

3.4.2.3 Graphical skills
Line graphs - simple, comparative, compound, and divergent
Bar graphs - simple, comparative, compound and divergent
Scatter graphs and the use of best fit line
Pie charts and proportional divided circles
• Triangular graphs.
• Graphs with logarithmic scales.
• Dispersion diagrams.

3.4.2.4 Statistical skills
• Measures of central tendency – mean, mode, median.
• Measures of dispersion – range, inter-quartile range and standard deviation.
• Inferential and relational statistical techniques to include Spearman's rank correlation and Chi-square test and the application of significance tests.

3.4.2.5 ICT skills

- Use of remotely sensed data (as described above in Core skills).
- Use of electronic databases.
- Use of innovative sources of data such as crowd sourcing and ‘big data’.
- Use of ICT to generate evidence of many of the skills provided above such as producing maps, graphs and statistical calculations.