



Department
for Education

Geography

GCE AS and A Level subject content

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The content for AS and A level geography

Introduction

1. The AS and A level subject content sets out the knowledge, understanding and skills common to all AS and A level specifications in geography.

Aims and objectives

2. AS and A level specifications in geography should encourage students to gain enjoyment, satisfaction and a sense of achievement as they develop their knowledge and understanding of the subject. The content should enable students to be inspired by their geographical understanding, to engage critically with real world issues and places, and to apply their geographical knowledge, theory and skills to the world around them. Students should grow as independent thinkers and as informed and engaged citizens, who understand the role and importance of geography as one of the key disciplines relevant to understanding the world's changing peoples, places and environments.

3. AS and A level specifications must enable students to:

- develop their knowledge of locations, places, processes and environments, at all geographical scales from local to global across the specification as a whole
- develop an in-depth understanding of the selected core and non-core processes in physical and human geography at a range of temporal and spatial scales, and of the concepts which illuminate their significance in a range of locational contexts
- recognise and be able to analyse the complexity of people-environment interactions at all geographical scales, and appreciate how these underpin understanding of some of the key issues facing the world today
- develop their understanding of, and ability to apply, the concepts of place, space, scale and environment, that underpin both the national curriculum and GCSE, including developing a more nuanced understanding of these concepts
- gain understanding of specialised concepts relevant to the core and non-core content. These must include the concepts of causality, systems, equilibrium, feedback, inequality, representation, identity, globalisation, interdependence, mitigation and adaptation, sustainability, risk, resilience and thresholds

- improve their understanding of the ways in which values, attitudes and circumstances¹ have an impact on the relationships between people, place and environment, and develop the knowledge and ability to engage, as citizens, with the questions and issues arising
- become confident and competent in selecting, using and evaluating a range of quantitative and qualitative skills and approaches, (including observing, collecting and analysing geo-located data) and applying them as an integral part of their studies
- understand the fundamental role of fieldwork as a tool to understand and generate new knowledge about the real world, and become skilled at planning, undertaking and evaluating fieldwork in appropriate situations
- apply geographical knowledge, understanding, skills and approaches in a rigorous way to a range of geographical questions and issues, including those identified in fieldwork, recognising both the contributions and limitations of geography
- develop as critical and reflective learners, able to articulate opinions, suggest relevant new ideas and provide evidenced argument in a range of situations

4. Awarding organisations must ensure that the content is developed at an appropriate level of demand for AS and A level, and that there is a clear progression in the breadth and depth of content from GCSE. Awarding organisations must aim to:

- build on knowledge of contexts, locations, places and environments, by extending the scope and scale of study, the variety of physical, social, economic, cultural and political contexts encountered, the depth of conceptual understanding required, and the range of spatial and temporal scales included
- ensure emphasis on deep understanding of both physical and human processes, and on applying this understanding to interrogate people-environment interactions and people-place connections at all scales from local to global
- require study that builds on and reinforces the conceptual understanding underpinning GCSE, and extends demand to include a wider range of more complex and specialised concepts that relate to the core and non-core content
- ensure that specifications demand engagement with models, theories and generalisations, and require a mature understanding of the nature and limitations of objectivity and the significance of human values and attitudes

¹ 'Circumstances' in this case refers to the context of people's lives, the socio-economic and political milieu in which they find themselves.

- promote understanding of the rationale for, and applications of, skills and approaches used, together with a considerable degree of independence in selecting and using a wide range of geographical methods, techniques and skills, involving both qualitative and quantitative methods
- ensure that fieldwork plays a key role in encouraging both AS and A level students to apply and evaluate theory in the real world, and that A level fieldwork in particular demands a high degree of responsibility from students for selecting research questions, applying relevant techniques and skills, and identifying appropriate ways of analysing and communicating findings

Subject content

The core content

5. The core content comprises 60% of both the AS and A level specifications and must address the following requirements:

- for AS, specifications must include at least one core physical geography theme and one core human geography theme, together with an appropriate selection of skills and fieldwork requirements relating to both physical and human themes, representing overall 60% of the AS
- for A level, specifications must include all four core themes, all the geographical skills, and all fieldwork requirements relating to both physical and human themes, representing overall 60% of the A level
- the core themes are equal in weight and depth of content (although the length of explanatory text may differ) and must be implemented with the depth, breadth and coverage specified for each theme on pages 5-11
- the specification must require geographical skills and fieldwork to be embedded within the required content knowledge

The non-core content

6. The remaining 40% of both the AS and A level must be selected by the awarding organisation, but must also:

- maintain the depth, breadth and challenge of the specification as a whole
- ensure that at least half of the 40% material selected for a specification addresses people-environment questions and issues
- draw in a balanced way from physical geography and human geography across the 40% non-core content as a whole, so that whatever form the content takes (eg people-environment issues; process studies, thematic topics) in the 40%

non-core content, it must draw evenly from physical geography and human geography overall in order to maintain the balance required in the specification as a whole

- the specification must require geographical skills and fieldwork to be embedded within the required content knowledge

The four core themes; knowledge and understanding

1. Water and carbon cycles

7. A level specifications, and AS specifications which address this theme, must require students to study the physical processes which control the cycling of both water and carbon between land, oceans and the atmosphere.

8. Study must:

- develop the required knowledge and understanding through study of both:
 1. the carbon cycle; and
 2. the water cycle
- take place within a systems framework emphasising the integrated nature of land, earth and atmosphere
- ensure engagement with a range of quantitative skills within this theme, including understanding of simple mass balance, unit conversions, and the analysis and presentation of field data. Qualitative approaches may be used if appropriate

9. Specifications must require students to demonstrate knowledge and understanding of the key areas of content listed below, and through this knowledge to understand that the carbon and water cycles play a key role in supporting life on Earth:

- the distribution and size of the most important stores of carbon on land, in the oceans and the atmosphere, and the factors driving change in the size of these stores over time and in space
- the pathways and processes which control the cycling of carbon within and between land, oceans and atmosphere at a range of time (seconds to millions of years) and space (plant to continental) scales. These processes must include (though need not be limited to) photosynthesis, respiration, decomposition, fossil fuel combustion, land use change, carbon sequestration in oceans and sediments, weathering
- the distribution and size of the most important stores of water on land, in the ocean, atmosphere and cryosphere, and the factors driving change in the size of these stores over time and in space

- the pathways which control cycling between land, ocean, atmosphere and cryosphere, and the processes which control transfers within and between them at a range of time (minutes to millennia) and space (hillslope to global) scales. These processes must include (though need not be limited to) evaporation and condensation, the formation of clouds and the causes of precipitation, runoff generation, catchment hydrology, water extraction and groundwater, land use change, cryospheric processes
- the links between the two cycles using climate as a key context for exploring these linkages and for developing and applying understanding of the role of feedbacks within and between the two cycles

2. Landscape systems

10. A level specifications, and AS specifications which address this theme, must require students to undertake an integrated study of earth surface processes, landforms and resultant landscapes.

11. Study must:

- develop the required knowledge and understanding through study of one landscape system chosen from either:
 - drylands:

drylands are characterised by limited soil moisture, caused by low precipitation and high evaporation, and by aeolian and episodic fluvial processes. They occur at all latitudes of the planet. Study must include at least one of: either drylands in high latitude polar regions or mid and low latitude deserts or semi-arid environments. UK fieldwork may include consideration of aeolian processes in coastal dune systems or other suitable environments

or;
 - coastal landscapes:

coastal landscapes develop by the interaction of winds, waves and currents, and the sediment supply sourced from terrestrial and offshore sources. Study must include both high energy coasts (such as rocky and sandy coastlines) and low energy coasts (such as estuarine coastlines)

or;
 - glaciated landscapes:

glaciated and formerly glaciated landscapes must include landscapes shaped by valley glaciers and by ice sheets, bearing erosional and/or depositional imprints of the former passage of glacier ice in a range of features

- take place within a systems framework, focusing on transfers of energy and movements of materials
- include landscapes from beyond the UK but may also include UK examples
- emphasise the use of quantitative approaches including developing observation skills, measurement and geo-spatial mapping skills, together with data manipulation and statistical skills applied to field measurement. Qualitative approaches may be used if appropriate

12. Specifications must require students to demonstrate knowledge and understanding of the key areas of content listed below, and through this knowledge to gain understanding of how earth processes are a vital context for human activity:

- the variety of geomorphological processes that operate within landscape systems and how the flows of energy and materials within the chosen landscape system combine to create specific landforms
- how landforms are inter-related and how, together, they make up characteristic landscapes
- the characteristics of physical processes and patterns at a variety of spatial (landform to landscape) and temporal (seconds to millennia) scales
- how landforms and landscapes evolve as a result of processes driven by past, present and future climate changes
- the impact of human activity as another factor causing change within landscape systems

3. Global systems and global governance

13. Greater connectivity between people, places and environments across the globe means that movements of goods, people, technology and ideas have become easier, and the systems which facilitate and direct these flows have become truly global in reach and impact. A level specifications, and AS specifications which address this theme, must require students to undertake study of the way in which global systems shape relationships between individuals, states and environments. They must also investigate the increasing numbers of norms, laws and conventions, referred to here as 'global governance', that aim to regulate the consequences of globalisation on people, places and environments around the world.

14. Study must:

- focus equally on two sub-themes:
 - (a) one from the following list allowing investigation of the operation of global systems; either:

- (i) international trade and access to markets in the contemporary world; or
 - (ii) patterns of human development and life expectancy (for example, as understood through the human development index); or
 - (iii) processes and patterns of global population migration
- (b) one from the following list illustrating the impacts of global governance; either:
- (i) governance of the global commons (selecting either Antarctica or the Earth's atmosphere or the oceans); or
 - (ii) human rights and the geopolitics of intervention; or
 - (iii) sovereignty and territorial integrity

- use both quantitative and qualitative approaches across the theme as a whole

15. Specifications must require students to demonstrate knowledge and understanding of the key areas of content listed below, and through this knowledge to gain understanding of the way in which global systems and global governance underlie their own and other people's lives across the globe:

Global Systems

- the nature of economic, political, social and environmental interdependence in the contemporary world
- 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
- 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 more constrained way

Global Governance

- the role of norms, laws and institutions in regulating and reproducing global systems, and analysis of the geographical consequences for citizens and places
- how attempts at global governance (including the example of the United Nations in the post-1945 era) can work to promote growth and stability but may also exacerbate inequalities and injustices
- how interactions between the local, regional, national, international and global scales are fundamental to an understanding of global governance

4. Changing place; changing places

16. Relationships and connections between people, the economy, society and the environment help to explain why places are constantly changing. In addition, the meanings and representations attached to places help to shape actions and behaviours affecting that place. A level specifications, and AS specifications which address this theme, must require that students undertake study of the way in which these factors (relationships, connections, meaning, representation) affect continuity and change in the nature of places and our understanding of place.

17. Study must develop the required knowledge and understanding:

- by starting study from the local place within which students live or study and at least one further contrasting place through which to develop the required knowledge and understanding. Study must involve moving out from the local place to encompass regional, national, international and global scales in order to understand the dynamics of place. (Note that a local place may be a locality, neighbourhood or small community, either urban or rural)
- focusing equally on two sub-themes:
 - (a) One from the list below which will allow investigation of the impact of relationships and connections on people and place; either:
 - (i) changing demographic and cultural characteristics; or
 - (ii) economic change and social inequalities; or
 - (iii) food production, circulation and consumption

and

- (b) one from the list below which will allow investigation of the importance of the meanings and representations attached to places by people; either:
 - (i) place making and marketing as revealed and contrasted in the work of a range of formal and informal agencies or their materials²; or
 - (ii) cultural and artistic approaches³ to representing place; or
 - (iii) lived experience of place (i.e. how people see, experience and understand places) in the past and present

² examples are, but are not limited to : governments, regional development bodies, investment companies, community groups, local artists or writers, campaign materials, local museum and gallery exhibitions.

³ examples are, but are not limited to: photography, film, music, art, literature, poetry, drama.

- give particular weight to qualitative approaches involved in representing place, and to analysing critically the impacts of different media on place meanings and perceptions. The use of quantitative data, including the use of geospatial data must also be used to present place characteristics

18. Specifications must require students to demonstrate knowledge and understanding of the key areas of content listed below, and through this knowledge to gain understanding of the way in which their own lives and those of others are affected by continuity and change in the nature of places:

Relationships and connections

- 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
- how past and present connections, within and beyond localities, shape places and embed them in the regional, national, international and global scales
- the characteristics and impacts of external forces operating at different scales from local to global, including at least one of (i) government policies, (ii) the decisions of multinational corporations, or (iii) the impacts of international or global institutions

Meaning and representations

- 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 (but not limited to) governments, 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
- that places may be represented in a variety of different forms⁴ and use different media⁵ that often give contrasting images to that presented more formally or statistically⁶

⁴ for example but not limited to: advertising copy, tourist agency material, local art exhibitions.

⁵ for example but not limited to: photography, film, music, art, literature, poetry, graffiti.

⁶ formal approaches and statistical representations might include but are not limited to: cartography, census data, digital worlds, geospatial technologies.

- that 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

Geographical skills

19. Competence in using geographical skills should be developed during study of core content and non-core content, not as a separate theme or topic. While the relative balance of quantitative and qualitative methods and skills will differ between each of the core and non-core themes, students must be introduced to a roughly equal balance of quantitative and qualitative across the specification as a whole.

20. AS and A level specifications must require students to:

- understand the nature and use of different types of geographical information, including qualitative and quantitative, primary and secondary, images, factual text and discursive/creative material, digital data, numerical and spatial data and innovative forms of data, including crowd-sourced and 'big data'
- collect, analyse and interpret such information, and demonstrate the ability to understand and apply suitable analytical approaches for the different information types
- undertake informed and critical questioning of data sources, analytical methodologies, data reporting and presentation, including the ability to identify sources of error in data and to identify the misuse of data
- communicate and evaluate findings, draw well-evidenced conclusions informed by wider theory, and construct extended written argument about geographical matters

21. A level specifications must require students to demonstrate all the following skills. AS level specifications must include a selection from both qualitative and quantitative skills listed below, as appropriate to the specification content.

22. Students must demonstrate the following skills specific to qualitative data:

- use and understand a mixture of methodological approaches, including using interviews
- interpret and evaluate a range of source material including textual and visual sources
- understand the opportunities and limitations of qualitative techniques such as coding and sampling, and appreciate how they actively create particular geographical representations
- understand the ethical and socio-political implications of collecting, studying and representing geographical data about human communities

23. Students must demonstrate the following skills specific to quantitative data:
- understand what makes data geographical and the geospatial technologies (e.g. GIS) that are used to collect, analyse and present geographical data
 - demonstrate an ability to collect and to use digital, geo-located data, and to understand a range of approaches to the use and analysis of such data;
 - understand the purposes and difference between the following and be able to use them in appropriate contexts:
 - descriptive statistics of central tendency and dispersion
 - descriptive measures of difference and association, inferential statistics and the foundations of relational statistics, including (but not limited to) measures of correlation and lines of best fit on a scatter plot
 - measurement, measurement errors, and sampling

Fieldwork

24. AS and A level specifications must require students to undertake fieldwork which meets the minimum requirements of 2 days of fieldwork at AS, and 4 days of fieldwork for A level. Awarding Organisations must require evidence of this fieldwork in the form of a written statement from Centres.

25. AS specifications must require students to:
- undertake fieldwork in relation to processes in both physical and human geography (some, but not all of this, may be within the context of people-environment questions and issues)
 - identify appropriate field research questions, based on their knowledge and understanding of relevant aspects of physical and human geography
 - understand how to observe and record phenomena in the field and be able to devise and justify practical approaches taken in the field, (including frequency/timing of observation, sampling, and data collection approaches)
 - demonstrate knowledge and understanding of how to undertake practical field methodologies appropriate to the investigation of core human and physical processes
 - demonstrate knowledge and understanding of implementing chosen methodologies to collect data/information of good quality that is relevant to the topic under investigation
 - apply existing knowledge and concepts to identify, order and understand field observations
 - show the ability to write a coherent analysis of fieldwork findings and results in order to answer a specific geographical question and to justify conclusions

26. A level specifications must require students to:

- undertake fieldwork in relation to processes in both physical and human geography, but the fieldwork which is part of the individual investigation may be either human, physical or integrated
- define the research questions which underpin field investigations
- research relevant literature sources and understand and write up the theoretical or comparative context for a research question
- observe and record phenomena in the field and devise and justify practical approaches taken in the field including frequency/timing of observation, sampling, and data collection approaches
- demonstrate practical knowledge and understanding of field methodologies appropriate to the investigation of core human and physical processes
- implement chosen methodologies to collect data/information of good quality and relevant to the topic under investigation
- demonstrate knowledge and understanding of the techniques appropriate for analysing field data and information and for representing results, and show ability to select suitable quantitative or qualitative approaches and to apply them
- demonstrate the ability to interrogate and critically examine field data in order to comment on its accuracy and/or the extent to which it is representative, and use the experience to extend geographical understanding
- apply existing knowledge, theory and concepts to order and understand field observations
- show the ability to write up field results clearly and logically, using a range of presentation methods
- evaluate and reflect on fieldwork investigations, explain how the results relate to the wider context and show an understanding of the ethical dimensions of field research
- demonstrate the ability to write a coherent analysis of fieldwork findings in order to answer a specific geographical question and to do this drawing effectively on evidence and theory to make a well-argued case

27. A level specifications must ensure that each student undertakes one independent investigation that involves, but need not be restricted to, fieldwork. The independent investigation must:

- be based on a question or issue defined and developed by the student individually to address aims, questions and/or hypotheses relating to any of the core or non-core content

- incorporate field data and/or evidence from field investigations, collected individually or in groups
- draw on the student's own research, including their own field data and, if relevant, secondary data sourced by the student
- require the student independently to contextualise, analyse and summarise findings and data
- involve the individual drawing of conclusions and their communication by means of extended writing and the presentation of relevant data



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