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# GCSE GEOGRAPHY

(8035)

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## Specification

For teaching from September 2016 onwards  
For exams in 2018 onwards

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Version 1.0 16 February 2016



# 2 Specification at a glance

This qualification is linear. Linear means that students will sit all their exams at the end of the course.

## 2.1 Subject content

### Living with the physical environment

3.1.1 [Section A: The challenge of natural hazards](#) (page 9)

3.1.2 [Section B: The living world](#) (page 12)

3.1.3 [Section C: Physical landscapes in the UK](#) (page 14)

### Challenges in the human environment

3.2.1 [Section A: Urban issues and challenges](#) (page 18)

3.2.2 [Section B: The changing economic world](#) (page 19)

3.2.3 [Section C: The challenge of resource management](#) (page 22)

### Geographical applications

3.3.1 [Section A: Issue evaluation](#) (page 26)

3.3.2 [Section B: Fieldwork](#) (page 27)

### Geographical skills

3.4 [Geographical skills](#) (page 29)

## 2.2 Assessments

Paper 1: Living with the physical environment
<p><b>What's assessed</b></p> <p>3.1.1 The challenge of natural hazards, 3.1.2 The living world, 3.1.3 Physical landscapes in the UK, 3.4 Geographical skills</p>
<p><b>How it's assessed</b></p> <ul style="list-style-type: none"> <li>Written exam: 1 hour 30 minutes</li> <li>88 marks (including 3 marks for spelling, punctuation, grammar and specialist terminology (SPaG))</li> <li>35% of GCSE</li> </ul>
<p><b>Questions</b></p> <ul style="list-style-type: none"> <li>Section A: answer all questions (33 marks)</li> <li>Section B: answer all questions (25 marks)</li> <li>Section C: answer any two questions from questions 3, 4 and 5 (30 marks)</li> <li>Question types: multiple-choice, short answer, levels of response, extended prose</li> </ul>



## Paper 2: Challenges in the human environment

### What's assessed

3.2.1 Urban issues and challenges, 3.2.2 The changing economic world, 3.2.3 The challenge of resource management, 3.4 Geographical skills

### How it's assessed

- Written exam: 1 hour 30 minutes
- 88 marks (including 3 marks for SPaG)
- 35% of GCSE

### Questions

- Section A: answer all questions (33 marks)
- Section B: answer all questions (30 marks)
- Section C: answer question 3 and one from questions 4, 5 or 6 (25 marks)
- Question types: multiple-choice, short answer, levels of response, extended prose



## Paper 3: Geographical applications

### What's assessed

3.3.1 Issue evaluation, 3.3.2 Fieldwork, 3.4 Geographical skills

### How it's assessed

- Written exam: 1 hour 15 minutes
- 76 marks (including 6 marks for SPaG)
- 30% of GCSE
- Pre-release resources booklet made available 12 weeks before Paper 3 exam

### Questions

- Section A: answer all questions (37 marks)
- Section B: answer all questions (39 marks)
- Question types: multiple-choice, short answer, levels of response, extended prose

# 3 Subject content

The subject content is split into four units: 3.1 Living with the physical environment, 3.2 Challenges in the human environment, 3.3 Geographical applications and 3.4 Geographical skills.

In units 3.1 and 3.2 the content is split into sections, with each section focusing on a particular geographical theme. Unit 3.3 sets out the requirements for fieldwork and issue evaluation. Unit 3.4 sets out the geographical skills that students are required to develop and demonstrate.

In the specification content, students are required to study case studies and examples. Case studies are broader in context and require greater breadth and depth of knowledge and understanding. Examples are more focused on a specific event or situation, are smaller in scale and do not cover the same degree of content.

## 3.1 Living with the physical environment

This unit is concerned with the dynamic nature of physical processes and systems, and human interaction with them in a variety of places and at a range of scales.

The aims of this unit are to develop an understanding of the tectonic, geomorphological, biological and meteorological processes and features in different environments, and the need for management strategies governed by sustainability and consideration of the direct and indirect effects of human interaction with the Earth and the atmosphere.

### 3.1.1 Section A: The challenge of natural hazards

In this section, students are required to study all the themes.

#### 3.1.1.1 Natural hazards

Key idea	Specification content
Natural hazards pose major risks to people and property.	Definition of a natural hazard. Types of natural hazard. Factors affecting hazard risk.

### 3.1.1.2 Tectonic hazards

Key idea	Specification content
Earthquakes and volcanic eruptions are the result of physical processes.	<p>Plate tectonics theory.</p> <p>Global distribution of earthquakes and volcanic eruptions and their relationship to plate margins.</p> <p>Physical processes taking place at different types of plate margin (constructive, destructive and conservative) that lead to earthquakes and volcanic activity.</p>
The effects of, and responses to, a tectonic hazard vary between areas of contrasting levels of wealth.	<p>Primary and secondary effects of a tectonic hazard.</p> <p>Immediate and long-term responses to a tectonic hazard.</p> <p>Use <b>named examples</b> to show how the effects and responses to a tectonic hazard vary between two areas of contrasting levels of wealth.</p>
Management can reduce the effects of a tectonic hazard.	<p>Reasons why people continue to live in areas at risk from a tectonic hazard.</p> <p>How monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard.</p>

### 3.1.1.3 Weather hazards

Key idea	Specification content
Global atmospheric circulation helps to determine patterns of weather and climate.	General atmospheric circulation model: pressure belts and surface winds.
Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions.	<p>Global distribution of tropical storms (hurricanes, cyclones, typhoons).</p> <p>An understanding of the relationship between tropical storms and general atmospheric circulation.</p> <p>Causes of tropical storms and the sequence of their formation and development.</p> <p>The structure and features of a tropical storm.</p> <p>How climate change might affect the distribution, frequency and intensity of tropical storms.</p>

Key idea	Specification content
Tropical storms have significant effects on people and the environment.	<p>Primary and secondary effects of tropical storms.</p> <p>Immediate and long-term responses to tropical storms.</p> <p>Use a <b>named example</b> of a tropical storm to show its effects and responses.</p> <p>How monitoring, prediction, protection and planning can reduce the effects of tropical storms.</p>
The UK is affected by a number of weather hazards.	An overview of types of weather hazard experienced in the UK.
Extreme weather events in the UK have impacts on human activity.	<p>An <b>example</b> of a recent extreme weather event in the UK to illustrate:</p> <ul style="list-style-type: none"> <li>• causes</li> <li>• social, economic and environmental impacts</li> <li>• how management strategies can reduce risk.</li> </ul> <p>Evidence that weather is becoming more extreme in the UK.</p>

### 3.1.1.4 Climate change

Key idea	Specification content
Climate change is the result of natural and human factors, and has a range of effects.	<p>Evidence for climate change from the beginning of the Quaternary period to the present day.</p> <p>Possible causes of climate change:</p> <ul style="list-style-type: none"> <li>• natural factors – orbital changes, volcanic activity and solar output</li> <li>• human factors – use of fossil fuels, agriculture and deforestation.</li> </ul> <p>Overview of the effects of climate change on people and the environment.</p>
Managing climate change involves both mitigation (reducing causes) and adaptation (responding to change).	<p>Managing climate change:</p> <ul style="list-style-type: none"> <li>• mitigation – alternative energy production, carbon capture, planting trees, international agreements</li> <li>• adaptation – change in agricultural systems, managing water supply, reducing risk from rising sea levels.</li> </ul>

## 3.1.2 Section B: The living world

In this section, students are required to study [Ecosystems](#) (page 12), [Tropical rainforests](#) (page 12) and **one** from [Hot deserts](#) (page 13) or [Cold environments](#) (page 14).

### 3.1.2.1 Ecosystems

Key idea	Specification content
Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components.	<p>An <b>example</b> of a small scale UK ecosystem to illustrate the concept of interrelationships within a natural system, an understanding of producers, consumers, decomposers, food chain, food web and nutrient cycling.</p> <p>The balance between components. The impact on the ecosystem of changing one component.</p> <p>An overview of the distribution and characteristics of large scale natural global ecosystems.</p>

### 3.1.2.2 Tropical rainforests

Key idea	Specification content
Tropical rainforest ecosystems have a range of distinctive characteristics.	<p>The physical characteristics of a tropical rainforest.</p> <p>The interdependence of climate, water, soils, plants, animals and people.</p> <p>How plants and animals adapt to the physical conditions.</p> <p>Issues related to biodiversity.</p>
Deforestation has economic and environmental impacts.	<p>Changing rates of deforestation.</p> <p>A <b>case study</b> of a tropical rainforest to illustrate:</p> <ul style="list-style-type: none"><li>• causes of deforestation – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth</li><li>• impacts of deforestation – economic development, soil erosion, contribution to climate change.</li></ul>

Key idea	Specification content
Tropical rainforests need to be managed to be sustainable.	<p>Value of tropical rainforests to people and the environment.</p> <p>Strategies used to manage the rainforest sustainably – selective logging and replanting, conservation and education, ecotourism and international agreements about the use of tropical hardwoods, debt reduction.</p>

### 3.1.2.3 Hot deserts

Key idea	Specification content
Hot desert ecosystems have a range of distinctive characteristics.	<p>The physical characteristics of a hot desert.</p> <p>The interdependence of climate, water, soils, plants, animals and people.</p> <p>How plants and animals adapt to the physical conditions.</p> <p>Issues related to biodiversity.</p>
Development of hot desert environments creates opportunities and challenges.	<p>A <b>case study</b> of a hot desert to illustrate:</p> <ul style="list-style-type: none"> <li>• development opportunities in hot desert environments: mineral extraction, energy, farming, tourism</li> <li>• challenges of developing hot desert environments: extreme temperatures, water supply, inaccessibility.</li> </ul>
Areas on the fringe of hot deserts are at risk of desertification.	<p>Causes of desertification – climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion.</p> <p>Strategies used to reduce the risk of desertification – water and soil management, tree planting and use of appropriate technology.</p>

### 3.1.2.4 Cold environments

Key idea	Specification content
Cold environments (polar and tundra) have a range of distinctive characteristics.	<p>The physical characteristics of a cold environment.</p> <p>The interdependence of climate, permafrost, soils, plants, animals and people.</p> <p>How plants and animals adapt to the physical conditions.</p> <p>Issues related to biodiversity.</p>
Development of cold environments creates opportunities and challenges.	<p>A <b>case study</b> of a cold environment to illustrate:</p> <ul style="list-style-type: none"> <li>• development opportunities in cold environments: mineral extraction, energy, fishing and tourism</li> <li>• challenges of developing cold environments: extreme temperature, inaccessibility, provision of buildings and infrastructure.</li> </ul>
Cold environments are at risk from economic development.	<p>The value of cold environments as wilderness areas and why these fragile environments should be protected.</p> <p>Strategies used to balance the needs of economic development and conservation in cold environments – use of technology, role of governments, international agreements and conservation groups.</p>

### 3.1.3 Section C: Physical landscapes in the UK

In this section, students are required to study [UK physical landscapes](#) (page 14) and **two** from [Coastal landscapes in the UK](#) (page 15), [River landscapes in the UK](#) (page 16) and [Glacial landscapes in the UK](#) (page 17).

#### 3.1.3.1 UK physical landscapes

Key idea	Specification content
The UK has a range of diverse landscapes.	An overview of the location of major upland/lowland areas and river systems.

## 3.1.3.2 Coastal landscapes in the UK

Key idea	Specification content
<p>The coast is shaped by a number of physical processes.</p>	<p>Wave types and characteristics.</p> <p>Coastal processes:</p> <ul style="list-style-type: none"> <li>• weathering processes – mechanical, chemical</li> <li>• mass movement – sliding, slumping and rock falls</li> <li>• erosion – hydraulic power, abrasion and attrition</li> <li>• transportation – longshore drift</li> <li>• deposition – why sediment is deposited in coastal areas.</li> </ul>
<p>Distinctive coastal landforms are the result of rock type, structure and physical processes.</p>	<p>How geological structure and rock type influence coastal forms.</p> <p>Characteristics and formation of landforms resulting from erosion – headlands and bays, cliffs and wave cut platforms, caves, arches and stacks.</p> <p>Characteristics and formation of landforms resulting from deposition – beaches, sand dunes, spits and bars.</p> <p>An <b>example</b> of a section of coastline in the UK to identify its major landforms of erosion and deposition.</p>
<p>Different management strategies can be used to protect coastlines from the effects of physical processes.</p>	<p>The costs and benefits of the following management strategies:</p> <ul style="list-style-type: none"> <li>• hard engineering – sea walls, rock armour, gabions and groynes</li> <li>• soft engineering – beach nourishment and reprofiling, dune regeneration</li> <li>• managed retreat – coastal realignment.</li> </ul> <p>An <b>example</b> of a coastal management scheme in the UK to show:</p> <ul style="list-style-type: none"> <li>• the reasons for management</li> <li>• the management strategy</li> <li>• the resulting effects and conflicts.</li> </ul>

### 3.1.3.3 River landscapes in the UK

Key idea	Specification content
<p>The shape of river valleys changes as rivers flow downstream.</p>	<p>The long profile and changing cross profile of a river and its valley.</p> <p>Fluvial processes:</p> <ul style="list-style-type: none"> <li>• erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion</li> <li>• transportation – traction, saltation, suspension and solution</li> <li>• deposition – why rivers deposit sediment.</li> </ul>
<p>Distinctive fluvial landforms result from different physical processes.</p>	<p>Characteristics and formation of landforms resulting from erosion – interlocking spurs, waterfalls and gorges.</p> <p>Characteristics and formation of landforms resulting from erosion and deposition – meanders and ox-bow lakes.</p> <p>Characteristics and formation of landforms resulting from deposition – levées, flood plains and estuaries.</p> <p>An <b>example</b> of a river valley in the UK to identify its major landforms of erosion and deposition.</p>
<p>Different management strategies can be used to protect river landscapes from the effects of flooding.</p>	<p>How physical and human factors affect the flood risk – precipitation, geology, relief and land use.</p> <p>The use of hydrographs to show the relationship between precipitation and discharge.</p> <p>The costs and benefits of the following management strategies:</p> <ul style="list-style-type: none"> <li>• hard engineering – dams and reservoirs, straightening, embankments, flood relief channels</li> <li>• soft engineering – flood warnings and preparation, flood plain zoning, planting trees and river restoration.</li> </ul> <p>An <b>example</b> of a flood management scheme in the UK to show:</p> <ul style="list-style-type: none"> <li>• why the scheme was required</li> <li>• the management strategy</li> <li>• the social, economic and environmental issues.</li> </ul>

### 3.1.3.4 Glacial landscapes in the UK

Key idea	Specification content
Ice was a powerful force in shaping the physical landscape of the UK.	<p>Maximum extent of ice cover across the UK during the last ice age.</p> <p>Glacial processes:</p> <ul style="list-style-type: none"> <li>• freeze-thaw weathering</li> <li>• erosion – abrasion and plucking</li> <li>• movement and transportation – rotational slip and bulldozing</li> <li>• deposition – why glaciers deposit sediment (till and outwash).</li> </ul>
Distinctive glacial landforms result from different physical processes.	<p>Characteristics and formation of landforms resulting from erosion – corries, arêtes, pyramidal peaks, truncated spurs, glacial troughs, ribbon lakes and hanging valleys.</p> <p>Characteristics and formation of landforms resulting from transportation and deposition – erratics, drumlins, types of moraine.</p> <p>An <b>example</b> of an upland area in the UK affected by glaciation to identify its major landforms of erosion and deposition.</p>
Glaciated upland areas provide opportunities for different economic activities, and management strategies can be used to reduce land use conflicts.	<p>An overview of economic activities in glaciated upland areas – tourism, farming, forestry and quarrying.</p> <p>Conflicts between different land uses, and between development and conservation.</p> <p>An <b>example</b> of a glaciated upland area in the UK used for tourism to show:</p> <ul style="list-style-type: none"> <li>• the attractions for tourists</li> <li>• social, economic and environmental impacts of tourism</li> <li>• strategies used to manage the impact of tourism.</li> </ul>

## 3.2 Challenges in the human environment

This unit is concerned with human processes, systems and outcomes and how these change both spatially and temporally. They are studied in a variety of places and at a range of scales and must include places in various states of development, such as higher income countries (HICs), lower income countries (LICs) and newly emerging economies (NEEs).

The aims of this unit are to develop an understanding of the factors that produce a diverse variety of human environments; the dynamic nature of these environments that change over time and

## 3.4 Geographical skills

Students are required to develop and demonstrate a range of geographical skills, including cartographic, graphical, numerical and statistical skills, throughout their study of the specification. Skills will be assessed in all three written exams. Ordnance Survey (OS) maps or other map extracts may be used in any of the three exams.

### 3.4.1 Cartographic skills

Cartographic skills relating to a variety of maps at different scales.

Atlas maps:

- use and understand coordinates – latitude and longitude
- recognise and describe distributions and patterns of both human and physical features
- maps based on global and other scales may be used and students may be asked to identify and describe significant features of the physical and human landscape on them, eg population distribution, population movements, transport networks, settlement layout, relief and drainage
- analyse the inter-relationship between physical and human factors on maps and establish associations between observed patterns on thematic maps.

Ordnance Survey maps:

- use and interpret OS maps at a range of scales, including 1:50 000 and 1:25 000 and other maps appropriate to the topic
- use and understand coordinates – four and six-figure grid references
- use and understand scale, distance and direction – measure straight and curved line distances using a variety of scales
- use and understand gradient, contour and spot height
- numerical and statistical information
- identify basic landscape features and describe their characteristics from map evidence
- identify major relief features on maps and relate cross-sectional drawings to relief features
- draw inferences about the physical and human landscape by interpretation of map evidence, including patterns of relief, drainage, settlement, communication and land-use
- interpret cross sections and transects of physical and human landscapes
- describe the physical features as they are shown on large scale maps of two of the following landscapes – coastlines, fluvial and glacial landscapes
- infer human activity from map evidence, including tourism.

Maps in association with photographs:

- be able to compare maps
- sketch maps: draw, label, understand and interpret
- photographs: use and interpret ground, aerial and satellite photographs
- describe human and physical landscapes (landforms, natural vegetation, land-use and settlement) and geographical phenomena from photographs
- draw sketches from photographs
- label and annotate diagrams, maps, graphs, sketches and photographs.

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## 3.4.2 Graphical skills

Graphical skills to:

- select and construct appropriate graphs and charts to present data, using appropriate scales – line charts, bar charts, pie charts, pictograms, histograms with equal class intervals, divided bar, scattergraphs, and population pyramids
- suggest an appropriate form of graphical representation for the data provided
- complete a variety of graphs and maps – choropleth, isoline, dot maps, desire lines, proportional symbols and flow lines
- use and understand gradient, contour and value on isoline maps
- plot information on graphs when axes and scales are provided
- interpret and extract information from different types of maps, graphs and charts, including population pyramids, choropleth maps, flow-line maps, dispersion graphs.

## 3.4.3 Numerical skills

Numerical skills to:

- demonstrate an understanding of number, area and scales, and the quantitative relationships between units
- design fieldwork data collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability
- understand and correctly use proportion and ratio, magnitude and frequency
- draw informed conclusions from numerical data.

## 3.4.4 Statistical skills

Statistical skills to:

- use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class)
- calculate percentage increase or decrease and understand the use of percentiles
- describe relationships in bivariate data: sketch trend lines through scatter plots, draw estimated lines of best fit, make predictions, interpolate and extrapolate trends
- be able to identify weaknesses in selective statistical presentation of data.

## 3.4.5 Use of qualitative and quantitative data

Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information.

Examples of types of data:

- maps
- fieldwork data
- geo-spatial data presented in a geographical information system (GIS) framework
- satellite imagery
- written and digital sources
- visual and graphical sources
- numerical and statistical information.

### 3.4.6 Formulate enquiry and argument

Students should demonstrate the ability to:

- identify questions and sequences of enquiry
- write descriptively, analytically and critically
- communicate their ideas effectively
- develop an extended written argument
- draw well-evidenced and informed conclusions about geographical questions and issues.

### 3.4.7 Literacy

Most communication is through the written word, raising the importance of good literacy skills. Students should be able to communicate information in ways suitable for a range of target audiences.



The exams will measure how students have achieved the following assessment objectives.

- AO1: Demonstrate knowledge of locations, places, processes, environments and different scales (15%).
- AO2: Demonstrate geographical understanding of: concepts and how they are used in relation to places, environments and processes; the interrelationships between places, environments and processes (25%).
- AO3: Apply knowledge and understanding to interpret, analyse and evaluate geographical information and issues to make judgements (35%, including 10% applied to fieldwork context(s)).
- AO4: Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings (25%, including 5% used to respond to fieldwork data and context(s)).

## Assessment objective weightings for GCSE Geography

Assessment objectives (AOs)	Component weightings (approx %)			Overall weighting (approx %)
	Paper 1	Paper 2	Paper 3	
AO1	7.5	7.5	0	15
AO2	11	11	3	25
AO3	8.5	8.5	18	35
AO4	8	8	9	25
Overall weighting of components	35	35	30	100

## 4.3 Assessment weightings

The marks awarded on the papers will be scaled to meet the weighting of the components. Students' final marks will be calculated by adding together the scaled marks for each component. Grade boundaries will be set using this total scaled mark. The scaling and total scaled marks are shown in the table below.

Component	Maximum raw mark	Scaling factor	Maximum scaled mark
Paper 1: Living with the physical environment	88	x1	88
Paper 2: Challenges in the human environment	88	x1	88
Paper 3: Geographical applications	76	x1	76
Total scaled mark:			252

## 4.4 Spelling, Punctuation and Grammar (SPaG)

Spelling, punctuation and grammar (SPaG) will be assessed against the following criteria: