

INTERNATIONAL GCSE

Geography (9-1)

SPECIFICATION

Pearson Edexcel International GCSE in Geography (4GE1)

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Edexcel, BTEC and LCCI qualifications

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This specification is Issue 2. Key changes are sidelined. We will inform centres of any changes to this issue. The latest issue can be found on our website qualifications.pearson.com

Acknowledgements

This specification has been produced by Pearson on the basis of consultation with teachers, examiners, consultants and other interested parties. Pearson would like to thank all those who contributed their time and expertise to the specification's development.

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Summary of Pearson Edexcel International GCSE in Geography (4GE1) specification Issue 2 changes

| Summary of changes made between previous issue and this current issue | Page number |
|--|-------------|
| Inclusion of fieldwork requirement in the content summary for paper 1 and paper 2 | 6, 7 |
| Inclusion of global issues topics in the content summary of paper 2 | 7 |
| For Topic 3: Hazardous environments the case study will now focus on an earthquake, rather than tropical cyclone | 11 |
| Key idea 2.1c) has been amended, to make the requirements clearer. | 13 |
| Key idea 2.3c) has been amended to 'There are different coastal management strategies' | 13 |
| Introduction to key ideas 3.3, the key ideas and detailed content amended to focus on earthquakes only | 14 |
| Integrated skills 2-5 have all been amended to better reflect the updated subject content in key ideas 3.1, 3.2 and 3.3 | 14 |
| Key ideas 9.1c), 9.2a), b) and c) and the associated integrated skills 3, 4 and 5 have been amended to allow them to link together better. | 28 |

If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html

1 About this specification

The Pearson Edexcel International GCSE in Geography is part of a suite of International GCSE qualifications offered by Pearson.

This qualification is not accredited or regulated by any UK regulatory body.

This specification includes the following key features.

Structure: the Pearson Edexcel International GCSE in Geography is a linear qualification. All examinations must be taken at the end of the course of study.

Content: relevant for an international audience, engaging, updated.

Assessment: encourages practical enquiry skills that underpin knowledge and understanding of geography.

Approach: independent learning, critical thinking skills, real life examples.

Specification updates

This specification is Issue 2 and is valid for the Edexcel International GCSE examination from June 2019. If there are any significant changes to the specification Pearson will inform centres to let them know. Changes will also be posted on our website.

For more information please visit qualifications.pearson.com

Using this specification

This specification has been designed to give guidance to teachers and to encourage effective delivery of the qualification. The following information will help you get the most out of the content and guidance.

Compulsory content: as a minimum, all the detailed content must be taught. The word 'including' in the content specifies the detail of what must be covered.

Examples: throughout the content, we have included examples of what could be covered or what might support teaching and learning. It is important to note that examples are for illustrative purposes only and centres can use other examples. We have included examples that are easily understood and recognised by international centres.

Assessments: use a range of material and are not limited to the examples given. Teachers should deliver the qualification using a good range of examples to support the assessment of the content.

Depth and breadth of content: teachers should use the full range of content and all the assessment objectives given in *Section 2: Geography content*.

Qualification aims and objectives

The aims and objectives of this qualification are to enable students to:

- apply and build on the fundamental building blocks of geographical knowledge
- actively engage in the process of geographical enquiry to develop as effective and independent learners, and as critical and reflective thinkers with enquiring minds
- develop their knowledge and understanding of geographical concepts and appreciate the relevance of these concepts to our changing world
- develop a framework of spatial awareness in which to appreciate the importance of the location of places and environments at a range of scales
- appreciate that people have different views of, and attitudes to, the world, its environments and its issues
- acquire, develop and apply practical geographical enquiry skills
- undertake geographical investigations that include both primary and secondary data collection, presentation and analysis, drawing conclusions, and evaluating the whole geographical investigation
- develop and apply their learning to the real world through fieldwork
- develop their awareness of global issues and recognise the challenges of moving towards a sustainable future.

Why choose Edexcel qualifications?

Pearson – the world’s largest education company

Edexcel academic qualifications are from Pearson, the UK’s largest awarding organisation. With over 3.4 million students studying our academic and vocational qualifications worldwide, we offer internationally recognised qualifications to schools, colleges and employers globally.

Pearson is recognised as the world’s largest education company, allowing us to drive innovation and provide comprehensive support for Edexcel students to acquire the knowledge and skills they need for progression in study, work and life.

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The background to Pearson becoming the UK’s largest awarding organisation began in 1836, when a royal charter gave the University of London its first powers to conduct exams and confer degrees on its students. With over 150 years of international education experience, Edexcel qualifications have firm academic foundations, built on the traditions and rigour associated with Britain’s educational system.

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Pearson’s leading online marking technology has been shown to produce exceptionally reliable results, demonstrating that at every stage, Edexcel qualifications maintain the highest standards.

Developed to Pearson’s world-class qualifications standards

Pearson’s world-class standards mean that all Edexcel qualifications are developed to be rigorous, demanding, inclusive and empowering. We work collaboratively with a panel of educational thought leaders and assessment experts, to ensure that Edexcel qualifications are globally relevant, represent world-class best practice and maintain a consistent standard.

For more information on the World Class Qualification process and principles please go to *Appendix 8* or visit our website: uk.pearson.com/world-class-qualifications

Why choose the Pearson Edexcel International GCSE in Geography?

We have listened to feedback from all parts of the international subject community. Based on that feedback, we have made changes that will engage students and give them opportunities to gain skills that will support progression to further study of geography, and to enhance their educational or employment prospects. This qualification enables students to explore the world, the challenges it faces and their own place in it, and to help prepare them to succeed in their chosen pathway. The content and assessment approach for this qualification has been designed to meet students' needs in the following ways.

Two-paper assessment – a new, two-paper model allows students to focus on physical and human geography. The qualification will test knowledge and understanding, as well as analytical, evaluation and fieldwork skills in both papers.

Concepts and content – the content in both Paper 1: Physical geography and Paper 2: Human geography is engaging and accessible for all students. The material is appropriate and relevant for progression, building understanding and awareness of a range of geographical concepts and skills, including fieldwork.

Localised content: teachers can localise the fieldwork and content covered to suit the needs and interests of a range of international learners in different regions.

Clear and straightforward question papers – our question papers are clear and accessible for students of all ability ranges. A range of question styles will be used. Our mark schemes are straightforward so that the assessment requirements are clear.

Broad and deep development of skills – the design of the revised International GCSE aims to extend students' knowledge by broadening and deepening skills. For example, students will:

- develop and apply a holistic range of knowledge and understanding of geographical concepts and skills, including fieldwork
- present and analyse data, draw conclusions and evaluate information from different sources
- develop awareness of global issues and challenges and that, in moving towards a sustainable future, people have different views and attitudes to the environment.

Progression to A Level – International GCSEs enable successful progression to Level 3 qualifications (such as the International A Level in Geography) and beyond, in geography and other subjects. Through our world-class qualification development process, we have consulted international geography teaching experts to validate this qualification and endorse its content, skills development and assessment structure.

Supporting you in planning and implementing this qualification

Planning

- Our *Getting Started Guide* gives you an overview of the Pearson Edexcel International GCSE in Geography to help you understand the changes to content and assessment, and to help you understand what these changes mean for you and your students.
- We will provide you with a course planner and schemes of work.
- Our mapping documents highlight key differences between the new and legacy qualifications.

Teaching and learning

- Our skills maps will highlight opportunities for students to develop skills that are assessed, as well as skills that are not directly assessed.
- Print and digital learning and teaching resources promote 'any time, any place' learning to improve student motivation and encourage new ways of working.

Preparing for exams

We will provide a range of resources to help you prepare your students for the assessments, including:

- specimen papers to support formative assessments and mock exams
- examiner commentaries following each examination series.

ResultsPlus

ResultsPlus provides the most detailed analysis available of your students' exam performance. It can help you identify the topics and skills where further learning would benefit your students.

examWizard

A free online resource designed to support students and teachers with exam preparation and assessment.

Training events

In addition to online training, we host a series of training events each year for teachers to deepen their understanding of our qualifications.

Get help and support

Our Subject Advisor service ensures that you receive help and guidance from us. You can sign up to receive updates at qualifications.pearson.com/en/subjects/geography or email 'sign me up' to teachinggeography@pearson.com

Qualification at a glance

Paper overview

| | |
|--|-------------------------------------|
| Paper 1: Physical geography | *Paper code 4GE1/01 |
| <ul style="list-style-type: none">Externally assessedAvailability: JuneFirst assessment: June 201970 marks | 40% of the total International GCSE |
| Content summary <ul style="list-style-type: none">River environmentsCoastal environmentsHazardous environments including fieldwork from one of these topics | |
| Assessment <p>Examination of 1 hour and 10 minutes, consisting of two sections. The questions are a mixture of multiple-choice, short-answer, data-response and open-ended questions.</p> Section A <p>Candidates choose two out of three questions on: river environments, coastal environments, hazardous environments.</p> Section B <p>Candidates choose one out of three fieldwork-related questions on: river environments, coastal environments, hazardous environments.</p> | |

| | |
|---|-------------------------------------|
| Paper 2: Human geography | *Paper code 4GE1/02 |
| <ul style="list-style-type: none"> Externally assessed Availability: June First assessment: June 2019 105 marks | 60% of the total International GCSE |
| <p>Content summary</p> <ul style="list-style-type: none"> Economic activity and energy Rural environments Urban environments <p>including fieldwork from one of these topics</p> <ul style="list-style-type: none"> Global issues (Fragile environments and climate change, Globalisation and migration, Development and human welfare) | |
| <p>Assessment</p> <p>Examination of 1 hour and 45 minutes, consisting of three sections. The questions are a mixture of multiple-choice, short-answer, data-response and open-ended questions.</p> <p>Section A</p> <p>Candidates choose two out of three questions on: economic activity and energy, rural environments, urban environments.</p> <p>Section B</p> <p>Candidates choose one out of three fieldwork-related questions on: economic activity and energy, rural environments, urban environments.</p> <p>Section C</p> <p>Candidates choose one out of three questions on: fragile environments and climate change, globalisation and migration, development and human welfare.</p> | |

* See *Appendix 1* for a description of this code and all the other codes relevant to this qualification.

2 Geography content

| | |
|-----------------------------|----|
| Paper 1: Physical geography | 11 |
| Paper 2: Human geography | 17 |

Course structure

- The Pearson Edexcel International GCSE in Geography comprises two examinations.
- The Pearson Edexcel International GCSE in Geography is a linear qualification.
All examinations must be taken in the terminal series at the end of the course of study.

The content in detail

The specification content for each topic is divided into the following sections.

Key ideas

Each topic is divided into a number of key ideas that give a focus to the content.

Detailed content


Each key idea is broken down into detailed content that specifies what must be studied. Examination questions will be based on this content.

Case studies and located examples

All students must study four in-depth case studies.

- In Paper 1, Section A: a case study of a developed country* and a developing country* or an emerging country*.
- Paper 2, Section A: a case study of a developed country* and a developing country* or an emerging country*.

In addition to four in-depth case studies, throughout the course it is a requirement to draw on located examples from developing, emerging and developed countries. Any located examples must be set within the broader contextual knowledge of the country.

In order to make it clear where a located example should be developed, a  symbol has been used.

Programmes of study could identify located examples within the countries selected for the four in-depth case studies.

Geographical skills

Throughout their course of study, students are required to develop a range of geographical skills, including quantitative skills. These skills may be assessed across any of the examined papers. The full list of geographical skills is given on *page 43*.

Some geographical skills may only be assessed in specific topics. Examples of how these skills could be used in particular topics are signposted in the detailed content and listed in the 'Integrated skills' sections after each topic.

Abbreviations used

GDP – gross domestic product

GIS – geographic information system

IGO – intergovernmental organisation

NGO – non-governmental organisation

TNC – transnational corporation

* See *Appendix 2* for definition of a developed, developing and emerging country.

Paper 1: Physical geography

Externally assessed

1.1 Description

This paper brings together physical geography and people-environment processes and interactions. The paper is divided into two sections.

Section A – students choose **two** out of three topics from: river environments, coastal environments, hazardous environments.

- Topic 1: River environments – features of the global hydrological cycle (including drainage basins), the physical processes that give rise to distinct river landforms and detailed case studies of river management in a developed **and** a developing **or** emerging country.
- Topic 2: Coastal environments – the processes that give rise to characteristic coastal landforms, threats facing coastal ecosystems and detailed case studies of coastal management in a developed **and** a developing **or** emerging country.
- Topic 3: Hazardous environments – the characteristics and distribution of different types of natural hazard, the measurement and impacts of hazards and detailed case studies of the management of an earthquake in a developed **and** a developing **or** emerging country.

Section B – students are required to undertake a geographical investigation involving fieldwork and research, in **one** natural environment. In this paper, students choose **one** out of three fieldwork-related questions from: river environments, coastal environments, hazardous environments.

1.2 Assessment information

Examination length: 1 hour and 10 minutes.

Examination paper is in two sections.

Section A (50 marks).

Candidates choose **two** out of three questions on: river environments, coastal environments, hazardous environments.

Section B (20 marks).

Candidates choose **one** out of three fieldwork-related questions on: river environments, coastal environments, hazardous environments.

Total for paper: 70 marks.

1.3 Subject content – Section A

Topic 1: River environments

What students need to learn

| Key ideas | Detailed content |
|---|---|
| 1.1 The world's water supply is contained in a closed system – the hydrological cycle | <ul style="list-style-type: none"> a) The hydrological cycle: characteristics, stores and transfers. b) Features of a drainage basin: source, watershed, channel network, mouth. c) Factors affecting river regimes: precipitation, including storm hydrographs, temperature, vegetation, land use, water abstraction, dams. (1) |
| 1.2 Physical processes give rise to characteristic river landforms | <ul style="list-style-type: none"> a) Fluvial processes involved in river valley and river channel formation: erosion (vertical and lateral), weathering and mass movement, transportation and deposition, and factors affecting these processes (climate, slope, geology, altitude and aspect). b) How channel shape (width, depth), valley profile (long and cross profiles), gradient, velocity, discharge, and sediment size and shape change along the course of a named river 🌐. (2) c) How river landscapes change over the course of a river, with distinctive upland and lowland landforms, including the formation of valleys, interlocking spurs, waterfalls, meanders, oxbow lakes, flood plains and levees. (3) |

Case studies of river management in a developed country **and** a developing country **or** an emerging country.

| | |
|---|--|
| 1.3 River environments are of great importance to people and need to be sustainably managed | <ul style="list-style-type: none"> a) Uses of water, including agriculture, industry, human hygiene and leisure, and the rising demand for and supply of water: areas of water shortage and water surplus. b) Reasons for variations in water quality, including pollution (sewage, industrial waste, agriculture) and the storage and supply of clean water (dams and reservoirs, pipelines, treatment works). (4) c) Causes of river flooding, including rainfall intensity, seasonal variations in discharge due to monsoons or snowmelt, relief, urbanisation, and the prediction and prevention of flooding. (5) |
|---|--|

| Integrated skills | |
|-------------------|---|
| (1) | Draw and interpret storm hydrographs using rainfall and discharge data. |
| (2) | Use geology maps (paper or online) to link river long profiles to geology. |
| (3) | Use GIS to map river systems. |
| (4) | Use different maps (paper or online) to investigate the impact of human intervention. |
| (5) | Use weather and climate data. |

Topic 2: Coastal environments

What students need to learn

| Key ideas | Detailed content |
|---|---|
| 2.1 Physical processes and human intervention give rise to characteristic coastal landforms | <p>a) Physical processes at work on the coast: marine processes (wave action, erosion, deposition and transportation, including longshore drift), weathering (mechanical, chemical and biological) and mass movement (sliding and slumping).</p> <p>b) Influence of geology, vegetation, people and sea-level changes on coastal environments. (1)</p> <p>c) Role of erosional and depositional processes in the development of landforms: headlands and bays, cliffs, wave-cut platforms, caves, arches, stacks and stumps, beaches, spits and bars. (2)</p> |
| 2.2 Distinctive ecosystems develop along particular stretches of coastline | <p>a) Distributions and features of the world's coastal ecosystems (coral reefs, mangroves, sand dunes and salt marshes). (3)</p> <p>b) Abiotic and biotic characteristics of one named coastal ecosystem 🌐. (4)</p> <p>c) How small- and large-scale coastal ecosystems are threatened by people and their activities (industrialisation, agricultural practices, tourism and deforestation).</p> |

Case studies of coastal management in a developed country **and** a developing country **or** an emerging country.

| | |
|---|--|
| 2.3 Coastal environments are of great importance to people and need to be sustainably managed | <p>a) Conflicts between different users of the coast, with different views on coastal management (conservation or development).</p> <p>b) Causes of coastal flooding (storm surges, tsunamis, climate change) and the prediction and prevention of flooding (forecasting, building design, planning and education).</p> <p>c) There are different coastal management strategies, including soft engineering (beach replenishment, cliff regrading, ecosystem rehabilitation and revegetation, managed retreat), hard engineering (groynes, revetments, sea walls, gabions, riprap) and shoreline management plans. (5)</p> |
|---|--|

| Integrated skills | |
|-------------------|--|
| (1) | Use maps (paper or online) to link coastal form to geology. |
| (2) | Use GIS to map coastal systems. |
| (3) | Use world maps to show the distribution of coastal ecosystems. |
| (4) | Use and interpret nutrient cycle diagrams and food web diagrams. |
| (5) | Use maps (paper or online) to indicate shoreline management plans. |

Topic 3: Hazardous environments

What students need to learn

| Key ideas | Detailed content |
|--|--|
| 3.1 Some places are more hazardous than others | <ul style="list-style-type: none"> a) Characteristics, distribution and measurement of different types of natural hazards including tropical cyclones, earthquakes and volcanoes. (1) b) Causes of tropical cyclone hazards, including ocean temperature, atmospheric pressure, wind shear and Coriolis force. c) Causes of volcanic and earthquake hazards, including the role of plate boundaries and hotspots. (2) |
| 3.2 Hazards have an impact on people and the environment | <ul style="list-style-type: none"> a) Reasons why people continue to live in areas at risk from hazard events. b) Some countries are more vulnerable (physically, socially and economically) than others to the impacts of natural hazards. c) The shorter-term and longer-term impacts of one earthquake one volcano and one tropical cyclone hazard (3). |

Case studies of hazard management for an earthquake in a developed country **and** a developing country **or** an emerging country.

| | |
|--|--|
| 3.3 Earthquakes present a hazard to many people and need to be managed carefully | <ul style="list-style-type: none"> a) Preparation for earthquakes (warning and evacuation, building design, remote sensing and GIS). (4) b) Short-term responses and relief (emergency aid, shelter and supplies). c) Longer-term planning (risk assessment, hazard mapping and rebuilding programmes). (5) |
|--|--|

| Integrated skills | |
|-------------------|---|
| (1) | Use world maps to show the distribution of different hazards. |
| (2) | Use a range of different maps to show links between tectonic boundary and hazard type. |
| (3) | Use social media sources, satellite images and socio-economic data to assess varying impacts. |
| (4) | Use GIS to investigate preparation for earthquake hazards. |
| (5) | Use online data sources to research the range of shorter and longer-term responses for a particular earthquake event. |

1.4 Assessment of fieldwork skills – Section B

Fieldwork opportunities are assessed in Section B of the examination papers.

Students are required to complete **two** geographical enquiries involving fieldwork and research, related to **one** topic in Paper 1 and **one** topic in Paper 2.

Paper 1: Physical geography

- River environments.
- Coastal environments.
- Hazardous environments.

Paper 2: Human geography

- Economic activity and energy.
- Rural environments.
- Urban environments.

Practical skills

As part of – and in addition to – undertaking the geographical enquiry, students should acquire and be able to apply the following skills:

- **graphical skills** – compiling graphs and flow lines, using proportional symbols, annotating maps, diagrams and photographs
- **map skills** (including use of digital maps) – using grid references, understanding scales, recognising symbols, identifying landforms and human features of the landscape
- **photo-interpretation skills** – reading vertical and oblique aerial photographs and satellite images, including GIS
- **sketching skills** – communicating ideas through simple sketch maps and field sketches
- **spatial awareness** – identifying the relative locations and relationships between features.

Cognitive enquiry skills

Students should acquire and be able to apply the following skills:

- **analysis of findings** – reviewing and interpreting quantitative and qualitative information using appropriate media
- **use of statistical skills** – simple descriptive statistics, such as lines of best fit, means, medians, modes, etc.
- **conflict resolution skills** – identifying the views of interested people (stakeholders), recognising that stakeholders may have strongly different attitudes and feelings towards a particular issue
- **evaluation of findings** – appraisal and review of data and information to see if they are accurate and suitable for the purpose, or misleading and unreliable.

Suggested fieldwork opportunities
Paper 1: Physical geography

| Section A topic | Geographical enquiry | Suggested methods of primary data collection <i>(this must include at least one quantitative and one qualitative method)</i> | |
|--------------------------|--|--|---|
| River environments | Investigation of change in a river channel through primary and secondary fieldwork evidence | Quantitative | e.g. sediment size/shape survey, discharge (velocity, width and depth) measurements |
| | | Qualitative | e.g. annotated field sketches of the river channel and its valley, photographs to show how the channel changes downstream |
| Coastal environments | Investigation of coastal processes and form through primary and secondary fieldwork evidence | Quantitative | e.g. sediment size/shape measurements, beach profile survey |
| | | Qualitative | e.g. annotated field sketches of cliff geology and structure, coastal protection survey |
| Hazardous environments | Investigation of physical processes involved in an extreme weather event through the recording of primary and secondary fieldwork evidence | Quantitative | e.g. recording wind, rain and temperature measurements in a weather diary, hazard mapping |
| | | Qualitative | e.g. annotated field sketches to show key features and/or impacts of an extreme weather event, photographs taken before, during and after the extreme weather event |
| Secondary sources | The use of at least two different secondary data sources for your chosen environment. | | |

Paper 2: Human geography

Externally assessed

2.1 Description

This paper brings together human geography and people-environment processes and interactions. The paper is divided into three sections.

Section A – students choose **two** out of three topics from: economic activity and energy, rural environments and urban environments.

- Topic 4: Economic activity and energy – variations in economic activity over time and spatially, the relationship between population and resources and detailed case studies of energy resource management in a developed **and** a developing **or** emerging country.
- Topic 5: Rural environments – distribution, characteristics and human activities taking place in rural environments, the changes in contrasting rural environments and detailed case studies of rural environments in a developed **and** a developing **or** emerging country.
- Topic 6: Urban environments – trends, characteristics and problems associated with urban environments, the challenges facing contrasting urban environments and detailed case studies of urban environments in a developed **and** a developing **or** emerging country.

Section B – students are required to undertake a geographical investigation, involving fieldwork and research, in **one** human environment. In this paper, students choose **one** out of three fieldwork-related questions from: economic activity and energy, rural environments and urban environments.

Section C – students are required to apply their knowledge and understanding of human and physical geography to investigate broader global issues. Students choose **one** out of three questions from: fragile environments and climate change, globalisation and migration, and development and human welfare.

- Topic 7: Fragile environments and climate change – distribution, characteristics and threats facing the world's fragile environments, the impacts of different processes, including climate change, on fragile environments, and different approaches to managing fragile environments in a more sustainable way.
- Topic 8: Globalisation and migration – the characteristics and growth in globalisation, including the role of global institutions and transnational corporations, and the impacts of increased globalisation, including migration and tourism and different approaches to managing migration and tourism in a more sustainable way.
- Topic 9: Development and human welfare – definitions and ways of measuring development and human welfare, patterns of global development and the consequences of variations in development, and different strategies to address uneven levels of development and human welfare.

2.2 Assessment information

Examination length: 1 hour and 45 minutes.

Examination paper is in three sections.

Section A (50 marks).

Candidates choose two out of three questions on: economic activity and energy, rural environments, and urban environments.

Section B (20 marks).

Candidates choose one out of three fieldwork-related questions on: economic activity and energy, rural environments, and urban environments.

Section C (35 marks).

Candidates choose one out of three questions on: fragile environments and climate change, globalisation and migration, and development and human welfare.

Total for paper: 105 marks.

2.3 Subject content – Section A

Topic 4: Economic activity and energy

What students need to learn

| Key ideas | Detailed content |
|---|--|
| 4.1 The relative importance of different economic sectors and the location of economic activity varies spatially, and changes over time | <ul style="list-style-type: none"> a) Classification of employment by economic sector (primary, secondary, tertiary and quaternary) and the reasons for the differences in the employment structures in countries at different levels of development (Clark Fisher Model). (1) b) Factors affecting the location of economic activity in each economic sector and how these factors can change over time. c) Reasons for the changes in the numbers of people employed in each economic sector, including the availability of raw materials, globalisation, mechanisation, demographic changes and government policies. |
| 4.2 The growth and decline of different economic sectors has resulted in a range of impacts and possible resource issues | <ul style="list-style-type: none"> a) Positive and negative impacts of economic sector shifts in a named developed 🌐 and a named developing 🌐 or emerging country 🌐. (2) b) Informal employment: causes (economic development, rural-urban migration) and characteristics (advantages and disadvantages) in a named megacity 🌐. (3) c) Different theories (Malthus and Boserup) are used to explain the relationship between population and resources. (4) |

Case studies of energy resource management in a developed country **and** a developing country **or** an emerging country.

| | |
|---|---|
| 4.3 Countries increasingly experience an energy gap and therefore seek energy security by developing a balanced energy mix and sustainable energy use | <ul style="list-style-type: none"> a) Energy demand and production varies globally and is affected by a range of factors: population growth, increased wealth and technological advances. b) Non-renewable, e.g. coal, oil, natural gas, uranium and shale gas/oil, and renewable sources of energy, e.g. solar, wind, hydroelectric power (HEP), geothermal, biomass, have advantages and disadvantages for people and the environment. c) Energy can be managed in a sustainable way through education, efficiency and conservation (within industry, transport and the home). (5) |
|---|---|

| Integrated skills | |
|--------------------------|--|
| (1) | Draw and interpret triangular graphs to show the proportion of people employed in the primary, secondary and tertiary/quaternary sector. |
| (2) | Use numerical economic data to profile the chosen country. |
| (3) | Interpret photographs and newspaper articles. |
| (4) | Use and interpret line graphs showing changes in population and resources over time. |
| (5) | Calculate carbon and ecological footprints. |

Topic 5: Rural environments

What students need to learn

| Key ideas | Detailed content |
|--|--|
| 5.1 Rural environments are natural ecosystems that are exploited by human activities | <ul style="list-style-type: none"> a) Distributions and characteristics of the world's biomes (tropical, temperate and boreal forests, tropical and temperate grasslands, deserts and tundra). (1) b) Examples of goods and services provided for people by natural ecosystems (timber, tourism, food, energy, water resources, health services, natural protection, and climate regulation). c) How humans use, modify and change ecosystems and rural environments to obtain food through farming systems (arable/pastoral, commercial/subsistence, intensive/extensive). (2) |
| 5.2 Rural environments have contrasting physical, social and economic characteristics and are experiencing significant changes | <ul style="list-style-type: none"> a) Characteristics of a rural environment: landscape, climate, settlement, population, land use, employment, accessibility, management (development or conservation). b) Factors leading to rural changes in a named developed country 🌐: rural isolation, decline in farm employment, tourist pressures, suburbanisation, counter-urbanisation, and the negative multiplier effect. c) Factors leading to rural changes in a named developing country 🌐 or emerging country 🌐: population growth, changing farm economy and landholdings, natural hazards, and rural-urban migration. (3) |

Case studies of rural environments in a developed country **and** in a developing country **or** an emerging country.

| | |
|---|--|
| 5.3 Rural environments need to adapt to be socially, economically and environmentally sustainable | <ul style="list-style-type: none"> a) The diversification of farming to generate new income streams: GM crops, specialist crops and food, organic farming, recreation and leisure. (4) b) The range of possible strategies aimed at making rural living more sustainable and improving the quality of life (soil and air quality, water supplies, crop yields, health, employment and housing) for the chosen rural environment. (5) c) Role of different groups of people (national and local government, IGOs, NGOs and local communities) in managing the social, economic and environmental challenges within the chosen rural environment. |
|---|--|

| Integrated skills | |
|--------------------------|--|
| (1) | Use world maps to show the location of biomes. |
| (2) | Use flow diagrams to represent the effects of different human activities on ecosystems and rural environments. |
| (3) | Use and interpret population pyramids. |
| (4) | Use photographs, marketing and social media to investigate diversification. |
| (5) | Use socio-economic data to provide evidence that the quality of life has improved. |

Topic 6: Urban environments

What students need to learn

| Key ideas | Detailed content |
|---|--|
| 6.1 A growing percentage of the world's population lives in urban areas | a) Contrasting trends in urbanisation over the last 50 years in different parts of the world, including the processes of suburbanisation and counter-urbanisation. (1) b) Factors affecting the rate of urbanisation and the emergence of megacities. c) Problems associated with rapid urbanisation: congestion, transport, employment, crime and environmental issues. (2) |
| 6.2 Cities face a range of social and environmental challenges resulting from rapid growth and resource demands | a) Factors affecting urban land use patterns: locational needs, accessibility, land values. (3) b) Urban challenges in a named developed country 🌐: food, energy, transport and waste disposal demands, concentrated resource consumption, segregation. (4) c) Urban challenges in a named developing country 🌐 or emerging country 🌐: squatter settlements, informal economy, urban pollution, and low quality of life. |

Case studies of urban environments in a developed country **and** a developing country **or** an emerging country.

| | |
|--|--|
| 6.3 Different strategies can be used to manage social, economic and environmental challenges in a sustainable manner | a) Development of the rural-urban fringe: housing estates, retail, business and science parks, industrial estates, and the greenfield versus brownfield debate. b) The range of possible strategies aimed at making urban living more sustainable and improving the quality of life (waste disposal, transport, education, health, employment and housing) for the chosen urban environment. (5) c) Role of different groups of people (planners, politicians, property developers and industrialists) in managing the social, economic and environmental challenges in the chosen urban area. |
|--|--|

| Integrated skills | |
|-------------------|--|
| (1) | Use world maps to show the trends in urbanisation over the last 50 years. |
| (2) | Interpret photographs and different maps (paper or online) to investigate the impacts of rapid urbanisation. |
| (3) | Use satellite images to identify different land uses in the chosen urban environment. |
| (4) | Use and interpret socio-economic data. |
| (5) | Use quantitative and qualitative information to judge the scale in variations in environmental quality. |

2.4 Assessment of fieldwork skills – Section B

Fieldwork opportunities are assessed in Section B of the examination papers.

Students are required to complete **two** geographical enquiries involving fieldwork and research, related to **one** topic in Paper 1 and **one** topic in Paper 2.

Paper 1: Physical geography

- River environments.
- Coastal environments.
- Hazardous environments.

Paper 2: Human geography

- Economic activity and energy.
- Rural environments.
- Urban environments.

Practical skills

As part of – and in addition to – undertaking the geographical enquiry, students should acquire and be able to apply the following skills:

- **graphical skills** – compiling graphs and flow lines, using proportional symbols, annotating maps, diagrams and photographs
- **map skills** (including use of digital maps) – using grid references, understanding scales, recognising symbols, identifying landforms and human features of the landscape
- **photo-interpretation skills** – reading vertical and oblique aerial photographs and satellite images, including GIS
- **sketching skills** – communicating ideas through simple sketch maps and field sketches
- **spatial awareness** – identifying the relative locations and relationships between features.

Cognitive enquiry skills

Students should acquire and be able to apply the following skills:

- **analysis of findings** – reviewing and interpreting quantitative and qualitative information using appropriate media
- **use of statistical skills** – simple descriptive statistics, such as lines of best fit, means, medians, modes, etc.
- **conflict resolution skills** – identifying the views of interested people (stakeholders), recognising that stakeholders may have strongly different attitudes and feelings towards a particular issue
- **evaluation of findings** – appraisal and review of data and information to see if these are accurate and suitable for the purpose, or misleading and unreliable.

Suggested fieldwork opportunities
Paper 2: Human geography

| Section B topic | Geographical enquiry | Suggested methods of primary data collection (this must include at least one quantitative and one qualitative method) | |
|------------------------------|---|---|--|
| Economic activity and energy | Investigating changing energy use through primary and secondary evidence | Quantitative | e.g. environmental quality survey, use of questionnaire to collect quantitative data from different interest groups |
| | | Qualitative | e.g. judgement survey to collect the attitudes and opinions from different groups of people, environmental impact assessment |
| Rural environments | Investigating the changing use of rural environments through primary and secondary evidence | Quantitative | e.g. environmental quality survey, building (height, age and materials) survey |
| | | Qualitative | e.g. interviews with residents in the rural environment, annotated land use mapping |
| Urban environments | Investigating the changing use of central/inner urban environments through primary and secondary evidence | Quantitative | e.g. environmental quality survey, land use survey |
| | | Qualitative | e.g. interviews with residents in the urban environment, urban transect survey |
| Secondary sources | The use of at least two different secondary data sources for your chosen environment. | | |

2.5 Subject content – Section C (Global issues)

Topic 7: Fragile environments and climate change

What students need to learn

| Key ideas | Detailed content |
|---|--|
| 7.1 Fragile environments are under threat from desertification, deforestation and global climate change | <p>a) Distributions and characteristics of the world's fragile environments. (1)</p> <p>b) Causes of desertification (drought, population pressure, fuel supply, overgrazing, migration) and deforestation (commercial timber extraction, agriculture, mining, transport; settlement and HEP (hydroelectric power). (2) and (3)</p> <p>c) Causes of natural climate change (Milankovitch cycles, solar variation and volcanism) and how human activities (industry, transport, energy, and farming) can cause the enhanced greenhouse effect. (4)</p> |
| 7.2 There are various impacts of desertification, deforestation and climate change on fragile environments | <p>a) Social, economic and environmental impacts of desertification (reduced agricultural output, malnutrition, famine, migration).</p> <p>b) Social, economic and environmental impacts of deforestation (loss of biodiversity, contribution to climate change, economic development and increased soil erosion).</p> <p>c) Negative effects that climate change is having on fragile environments and people (rising sea levels, more hazards, ecosystem changes, reduced employment opportunities, changing settlement patterns, health and wellbeing challenges, including food supply). (5)</p> |
| 7.3 The responses to desertification, deforestation and climate change vary depending on a country's level of development | <p>a) How technology can resolve water-resource shortages in fragile environments under threat from desertification.</p> <p>b) Different approaches to the sustainable use and management of a rainforest in a named region 🌐 to limit the extent of deforestation.</p> <p>c) Different responses to global warming and climate change from individuals, organisations and governments in a named developed 🌐 and a named emerging or developing country 🌐.</p> |

| Integrated skills | |
|-------------------|--|
| (1) | Use world maps to show the location of fragile environments. |
| (2) | Use and interpret line graphs showing past and predicted global population growth, and population in relation to likely resources. |
| (3) | Use maps (paper and online) to identify the pattern of deforestation. |
| (4) | Use and interpret graphs and maps to show human causes of climate change. |
| (5) | Use and interpret line graphs/bar charts showing climate change and sea level change. |

Topic 8: Globalisation and migration

What students need to learn

| Key ideas | Detailed content |
|--|---|
| 8.1 Globalisation is creating a more connected world, with increased movements of goods (trade) and people (migration and tourism) worldwide | <p>a) Rise of the global economy (growth of production and commodity chains) and the factors encouraging it (trade, foreign investment, aid, labour, modern transport and information technologies). (1)</p> <p>b) Role of global institutions, including the World Trade Organization (WTO), the International Monetary Fund (IMF) and TNCs in creating a more globalised economy.</p> <p>c) Push and pull factors (social, economic and political) that have influenced rates of different types of migration over the last 50 years, including medical, sport, tourism and economic. (2)</p> |
| 8.2 The impacts of globalisation vary on a global scale | <p>a) Impacts of globalisation on different groups of people, including the benefits and costs to countries hosting TNCs. (3)</p> <p>b) Impacts of migration (voluntary, forced, national, international, and rural-urban) on different groups of people. (4)</p> <p>c) Positive and negative impacts of the growth of global tourism, including mass tourism, on the environment, economy and people of destination areas. (5)</p> |
| 8.3 The responses to increased migration and tourism vary depending on a country's level of development | <p>a) How geopolitical relationships between countries are important in managing trade, migration and tourism.</p> <p>b) Different approaches to the management of long-term migration in a named country 🌐.</p> <p>c) Different approaches to make tourism more sustainable from individuals, organisations and governments in a named developed 🌐 and a named emerging or developing country 🌐.</p> |

| Integrated skills | |
|-------------------|--|
| (1) | Use and interpret line graphs/bar charts showing changes in the global economy over the past 50 years. |
| (2) | Use maps (paper and online) to identify patterns of migration. |
| (3) | Interpret photographs and newspaper articles. |
| (4) | Use and interpret graphs to show rates of population movement over the past 50 years. |
| (5) | Use and interpret socio-economic data. |

Topic 9: Development and human welfare

What students need to learn

| Key idea | Detailed content |
|---|--|
| 9.1 Definitions of development and human welfare vary, as do attempts to measure it | <ul style="list-style-type: none"> a) The different ways of defining development, using economic criteria and broader social and political measures. b) Different factors contribute to the development and human welfare of a country: economic, social, technological, cultural, as well as food and water security. c) Development is measured in different ways: GDP per capita, the Human Development Index, measures of inequality and indices of political corruption. (1) and (2) |
| 9.2 The level of development and human welfare varies globally and has had a range of consequences | <ul style="list-style-type: none"> a) Global pattern of the uneven development between and within countries and the factors (social, historic and economic) that have led to these spatial variations. b) Impact of uneven development on welfare and quality of life within one named country 🌐: poverty, unemployment, inadequate housing and physical infrastructure. (3) c) How countries at different levels of development have differences in their demographic data (fertility rates, death rates, natural increase, population structures, maternal and infant mortality rates). (4) and (5) |
| 9.3 A range of sustainable strategies is required to address uneven levels of development and human welfare | <ul style="list-style-type: none"> a) The range of international strategies (international aid and intergovernmental agreements) that attempt to reduce uneven development. b) Different views held by individuals, organisations and governments on tackling the development gap. c) Advantages and disadvantages of top-down and bottom-up development projects used to promote development in a named developed 🌐 and a named emerging or developing country 🌐. |

| Integrated skills | |
|-------------------|--|
| (1) | Compare the relative ranking of countries using single and composite (indices) development measures. |
| (2) | Use and interpret socio-economic data. |
| (3) | Use numerical online data to profile the chosen country. |
| (4) | Interpret population pyramids using demographic data. |
| (5) | Use and interpret different demographic data to show varying levels of development. |

3 Assessment information

Assessment requirements

| Paper number and unit title | Assessment information | Number of raw marks allocated in the paper |
|-----------------------------|---|--|
| Paper 1: Physical geography | <p>1 hour and 10 minute examination in two sections and resource booklet.</p> <p>Candidates will be asked to answer two out of three questions in Section A and one out of three questions in Section B.</p> <p>Section A consists of multiple-choice, short-answer, data-response, and open-ended questions.</p> <p>Section B requires candidates to use knowledge and understanding from research and fieldwork that they have carried out. Candidates must not take materials into the examination.</p> | 70 |
| Paper 2: Human geography | <p>1 hour and 45 minute examination in three sections and resource booklet.</p> <p>Candidates will be asked to answer two out of three questions in Section A, one out of three questions in Section B and one out of three questions in Section C.</p> <p>Section A consists of multiple-choice, short-answer, data-response, and open-ended questions.</p> <p>Section B requires candidates to use knowledge and understanding from research and fieldwork that they have carried out. Candidates must not take materials into the examination.</p> <p>Section C consists of multiple-choice, short-answer, data-response, and open-ended questions.</p> | 105 |

Sample assessment materials

Sample papers and mark schemes can be found in the *Pearson Edexcel International GCSE in Geography Sample Assessment Materials (SAMs)* document.

Assessment objectives and weightings

| | | % in International GCSE |
|------------|---|--|
| A01 | Demonstrate knowledge of locations, places, processes, environments and different scale. | 15–16 |
| A02 | Demonstrate geographical understanding of: <ul style="list-style-type: none"> • concepts and how they are used in relation to places, environments and processes • the interrelationships between places, environments and processes. | 25–26 |
| A03 | Apply knowledge and understanding to interpret, analyse and evaluate geographical information and issues and to make judgements. | 34–35 (approx. 13% applied to fieldwork context(s)) |
| A04 | Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings. | 24–25 (approx. 10% used to respond to fieldwork data and context(s)) |

Relationship of assessment objectives to papers

| Unit number | Assessment objective | | | |
|-------------------------------------|-----------------------------|------------|------------|------------|
| | A01 | A02 | A03 | A04 |
| Paper 1 | 7.1% | 12.9% | 17.9% | 12.1% |
| Paper 2 | 8.5% | 12.9% | 16.2% | 12.4% |
| Total for International GCSE | 15–16% | 25–26% | 34–35% | 24–25% |

All papers will be available for assessment from June 2019.

4 Administration and general information

Entries

Details of how to enter students for the examinations for this qualification can be found in our *International Information Manual*. A copy is made available to all examinations officers and is available on our website.

Students should be advised that, if they take two qualifications in the same subject, colleges, universities and employers are very likely to take the view that they have achieved only one of the two GCSEs/International GCSEs. Students or their advisers who have any doubts about subject combinations should check with the institution to which they wish to progress before embarking on their programmes.

Access arrangements, reasonable adjustments, special consideration and malpractice

Equality and fairness are central to our work. Our equality policy requires all students to have equal opportunity to access our qualifications and assessments, and our qualifications to be awarded in a way that is fair to every student.

We are committed to making sure that:

- students with a protected characteristic (as defined by the UK Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to students who do not share that characteristic
- all students achieve the recognition they deserve for undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

Language of assessment

Assessment of this qualification will only be available in English. All student work must be in English.

Access arrangements

Access arrangements are agreed before an assessment. They allow students with special educational needs, disabilities or temporary injuries to:

- access the assessment
- show what they know and can do without changing the demands of the assessment.

The intention behind an access arrangement is to meet the particular needs of an individual student with a disability without affecting the integrity of the assessment. Access arrangements are the principal way in which awarding bodies comply with the duty under the Equality Act 2010 to make 'reasonable adjustments'.

Access arrangements should always be processed at the start of the course. Students will then know what is available and have the access arrangement(s) in place for assessment.

Reasonable adjustments

The Equality Act 2010 requires an awarding organisation to make reasonable adjustments where a student with a disability would be at a substantial disadvantage in undertaking an assessment. The awarding organisation is required to take reasonable steps to overcome that disadvantage.

A reasonable adjustment for a particular student may be unique to that individual and therefore might not be in the list of available access arrangements.

Whether an adjustment will be considered reasonable will depend on a number of factors, including:

- the needs of the student with the disability
- the effectiveness of the adjustment
- the cost of the adjustment; and
- the likely impact of the adjustment on the student with the disability and other students.

An adjustment will not be approved if it involves unreasonable costs to the awarding organisation, timeframes or affects the security or integrity of the assessment. This is because the adjustment is not 'reasonable'.

Special consideration

Special consideration is a post-examination adjustment to a student's mark or grade to reflect temporary injury, illness or other indisposition at the time of the examination/assessment, which has had, or is reasonably likely to have had, a material effect on a candidate's ability to take an assessment or demonstrate his or her level of attainment in an assessment.

Further information

Please see our website for further information about how to apply for access arrangements and special consideration.

For further information about access arrangements, reasonable adjustments and special consideration please refer to the JCQ website: www.jcq.org.uk

Malpractice

Candidate malpractice

Candidate malpractice refers to any act by a candidate that compromises or seeks to compromise the process of assessment or which undermines the integrity of the qualifications or the validity of results/certificates.

Candidate malpractice in examinations **must** be reported to Pearson using a *JCQ Form M1* (available at www.jcq.org.uk/exams-office/malpractice). The form can be emailed to pqsmalpractice@pearson.com or posted to: Investigations Team, Pearson, 190 High Holborn, London, WC1V 7BH. Please provide as much information and supporting documentation as possible. Note that the final decision regarding appropriate sanctions lies with Pearson.

Failure to report malpractice constitutes staff or centre malpractice.

Staff/centre malpractice

Staff and centre malpractice includes both deliberate malpractice and maladministration of our qualifications. As with candidate malpractice, staff and centre malpractice is any act that compromises or seeks to compromise the process of assessment or which undermines the integrity of the qualifications or the validity of results/certificates.

All cases of suspected staff malpractice and maladministration **must** be reported immediately, before any investigation is undertaken by the centre, to Pearson on a *JCQ Form M2(a)* (available at www.jcq.org.uk/exams-office/malpractice).

The form, supporting documentation and as much information as possible can be emailed to pqsmalpractice@pearson.com or posted to: Investigations Team, Pearson, 190 High Holborn, London, WC1V 7BH. Note that the final decision regarding appropriate sanctions lies with Pearson.

Failure to report malpractice itself constitutes malpractice.

More-detailed guidance on malpractice can be found in the latest version of the document *JCQ General and vocational qualifications Suspected Malpractice in Examinations and Assessments*, available at www.jcq.org.uk/exams-office/malpractice.

Awarding and reporting

The International GCSE qualification will be graded and certificated on a nine-grade scale from 9 to 1 using the total subject mark where 9 is the highest grade. Individual components are not graded. The first certification opportunity for the Pearson Edexcel International GCSE in Geography will be in 2019. Students whose level of achievement is below the minimum judged by Pearson to be of sufficient standard to be recorded on a certificate will receive an unclassified U result.

Student recruitment and progression

Pearson's policy concerning recruitment to our qualifications is that:

- they must be available to anyone who is capable of reaching the required standard
- they must be free from barriers that restrict access and progression
- equal opportunities exist for all students.

Prior learning and other requirements

There are no prior learning or other requirements for this qualification.

Progression

Students can progress from this qualification to:

- International AS and A Levels in Geography and other subjects
- vocational qualifications, such as BTEC Nationals.

Appendices

| | |
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Appendix 1: Codes

| Type of code | Use of code | Code |
|---------------|--|--------------------------------------|
| Subject codes | The subject code is used by centres to cash in the entry for a qualification. | International GCSE – 4GE1 |
| Paper codes | These codes are provided for information. Students may need to be entered for individual papers. | Paper 1: 4GE1/01 Paper 2: 4GE1/02 |

Appendix 2: Definitions

| Term | Use of code |
|--------------------|---|
| Developing country | Country with low human development* (LHD), a poor country |
| Emerging country | Country with high or medium human development* (HMHD) |
| Developed country | Country with very high human development* (VHHD) |
| Megacity | City with population of at least 10 million inhabitants |

* Human development as measured by the Human Development Index (HDI). For further information on which countries are categorised as low, medium, high and very high human development by HDI, please see this website: hdr.undp.org, alternatively please email TeachingGeography@pearson.com for further information on the definitions used within this document.

Appendix 3: Exam command word definitions

This table lists the command words that could be used in the examinations for this qualification and their definitions.

| Command word | Definition |
|---------------------|---|
| Identify/state/name | Recall or select one or more pieces of information. |
| Define | State the meaning of a term. |
| Calculate | Produce a numerical answer, showing relevant working. |
| Label | Add a label/labels to a given resource, graphic or image. |
| Draw/plot | Create a graphical representation of geographical information. |
| Compare | Find the similarities and differences of two elements given in a question. Each response must relate to both elements and must include a statement of their similarity/difference. |
| Describe | Give an account of the main characteristics of something or the steps in a process. Statements in the response should be developed but do not need to include a justification or reason. |
| Explain | Provide a reasoned explanation of how or why something occurs. An explanation requires a justification/exemplification of a point. Some questions will require the use of annotated diagrams to support the explanation. |
| Suggest | Apply understanding to provide a reasoned explanation of how or why something may occur. A suggested explanation requires a justification/exemplification of a point. |
| Examine | Break something down into individual components/processes and say how each one individually contributes to the question's theme/topic and how the components/processes work together and interrelate. |
| Assess | Use evidence to determine the relative significance of something. Give consideration to all factors and identify which are the most important. |
| Analyse | Investigate an issue by breaking it down into individual components and making logical, evidence-based connections about the causes and effects or interrelationships between the components. |
| Evaluate | Measure the value or success of something and ultimately provide a substantiated judgement/conclusion. Review information and then bring it together to form a conclusion, drawing on evidence such as strengths, weaknesses, alternatives and relevant data. |
| Discuss | Explore the strengths and weaknesses of different sides of an issue/question. Investigate the issue by reasoning or argument. |

Appendix 4: Geographical skills

Throughout their course of study, students are required to develop a range of geographical skills, including quantitative skills. These skills may be assessed across any of the examined papers. The full list of geographical skills is given below.

Some geographical skills may only be assessed in specific topics. Examples of how these skills could be used within particular topics are signposted in the detailed content and listed in the 'Integrated skills' sections after each topic.

General skills

Atlas and map skills

- Recognise and describe distributions and patterns of both human and physical features at a range of scales, using a variety of maps and atlases.
- Draw, label, annotate, understand and interpret sketch maps.
- Recognise and describe patterns of vegetation, land use and communications infrastructure, as well as other patterns of human and physical landscapes.
- Describe and identify the site, situation and shape of settlements.

Graphical skills

- Label, annotate and interpret different diagrams, maps, graphs, sketches and photographs.
- Use and interpret aerial, oblique, ground and satellite photographs from a range of different landscapes.
- Use maps in association with photographs and sketches and understand links to directions.

Data and information research skills

- Use online census sources to obtain population and local geodemographic information.

Investigative skills

- Identify questions or issues for investigation, develop a hypothesis and/or key questions.
- Consider appropriate sampling procedures (systematic versus random versus stratified) and sample size.
- Consider health and safety and undertake risk assessment.
- Select data collection methods and equipment to ensure accuracy and reliability, and develop recording sheets for measurements and observations.
- Use ICT to manage, collate, process and present information, with use of hand-drawn graphical skills to present information in a suitable way.
- Write descriptively, analytically and critically about findings.
- Develop extended written arguments, drawing well-evidenced and informed conclusions about geographical questions and issues.

Quantitative skills

Cartographic skills

- Use and understand gradient, contour and spot height on isoline maps, e.g. OS maps, weather charts, ocean bathymetric charts.
- Interpret cross sections and transects.
- Use and understand coordinates, scale and distance.
- Describe and interpret geospatial data presented in a GIS framework, e.g. analysis of flood hazard using the interactive maps on an environmental agency website.

Graphical skills

- Select and construct appropriate graphs and charts to present data, using appropriate scales and including bar charts, pie charts, pictograms, line charts and histograms with equal class intervals.
- Interpret and extract information from different types of graphs and charts, including any of the above and others relevant to the topic, e.g. triangular graphs, radial graphs, wind rose diagrams, proportional symbols.
- Interpret population pyramids, choropleth maps and flow line maps.

Numerical skills

- Demonstrate an understanding of number, area and scale, 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, e.g. 1 : 200 flood, and logarithmic scales such as the Richter scale, in orders of magnitude.
- Draw informed conclusions from numerical data.

Statistical skills

- Use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and interquartile range, mode and modal class).
- Calculate percentage increase or decrease and understand the use of percentiles.
- Describe relationships in bivariate data, e.g. sketch trend lines through scatter plots, draw estimated lines of best fit, make predictions, interpolate and extrapolate trends.
- Identify weaknesses in selective statistical presentation of data.

Practical geographical enquiry skills

Throughout their course, students need to acquire a range of geographical skills through fieldwork and linked practical exercises. Fieldwork is integral to the enquiry process that underpins the qualification.

Ofsted (2011 subject report) and national NGOs support the view that good and regular fieldwork motivates learners and enhances their understanding of geography. There is evidence that fieldwork encourages a higher than average take-up of academic qualifications.

Fieldwork and enquiry skills should include:

- **pre-fieldwork planning** – designing a fieldwork investigation, as per the qualification content
- **primary field skills** – undertaking a field investigation, the need for sampling, data collection and recording techniques. This can be undertaken within the school grounds or immediate locality
- **presentation, analysis, conclusions and evaluation skills** – using a range of data presentation techniques, analysis of data and drawing conclusions, evaluating the techniques used and the conclusions drawn.

These concepts are shown more fully in the *Suggested fieldwork opportunities* diagram on *page 16* (Paper 1) and *page 25* (Paper 2).

Fieldwork and exceptional circumstances

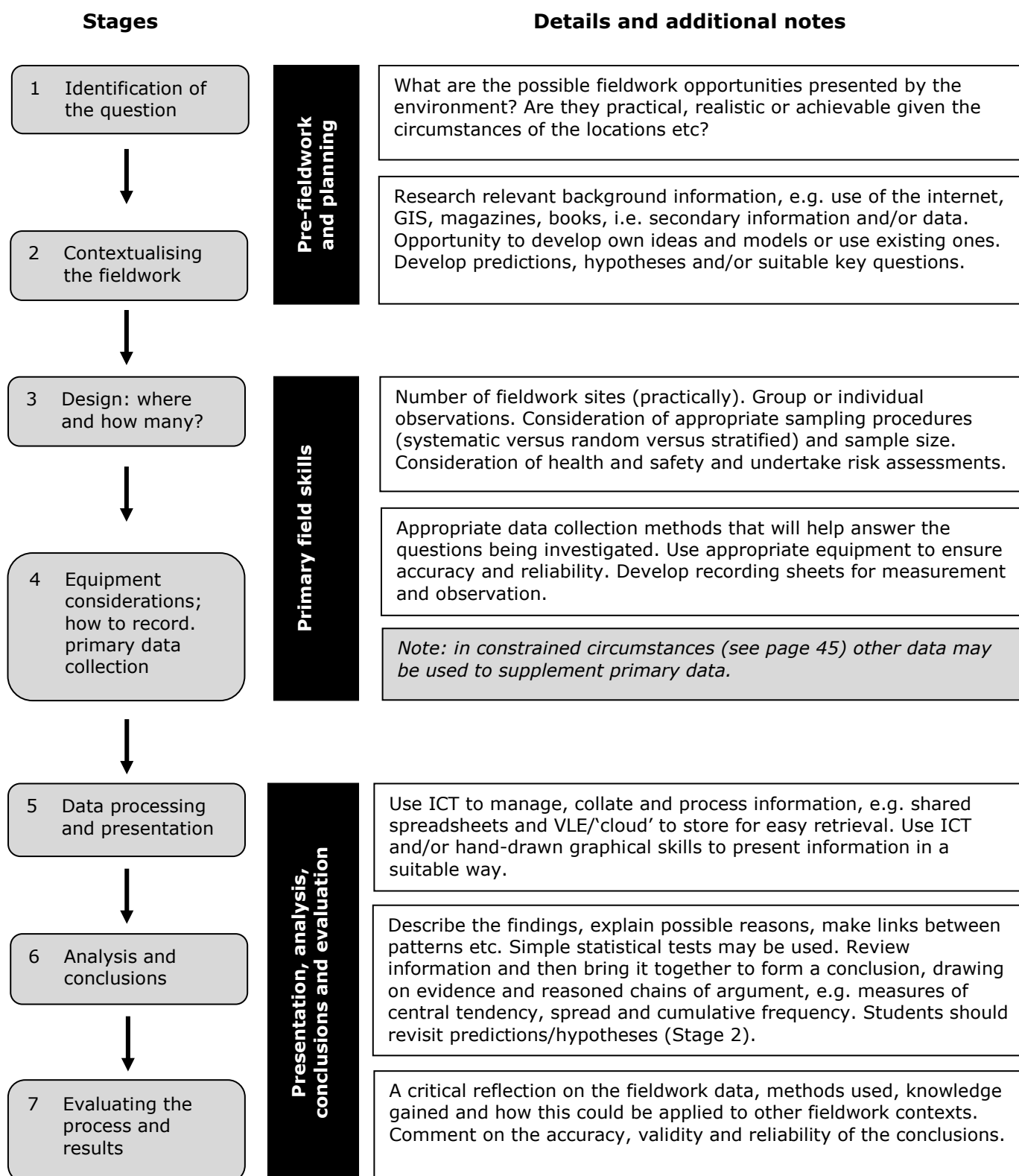
Pearson recognises that for some centres and/or individuals, fieldwork (specifically first-hand data collection activities) can be constrained by:

- (i) geographical location/physical nature of the region
- (ii) cultural/religious exceptions
- (iii) illness
- (iv) physical disability; or
- (v) security.

In these rare circumstances, other fieldwork data could be used instead, e.g. from another agency/organisation, books/magazines or from other students who were able to collect the data themselves (including from previous cohorts). More examples of other sources of fieldwork data, including relevant websites, can be found in Pearson Edexcel International GCSE in Geography teacher support materials. All other aspects of the enquiry process should remain unchanged for those learners (Stages 1–3 and 5–7 in the enquiry process) who have not collected their own data. These students should work with the substitute data, e.g. graphing, analysis, conclusions, evaluations etc., as if it were their own.

When exceptional circumstances are employed as part of the fieldwork process, **either** for an individual, group **or** cohort, centres must justify their particular circumstances to Pearson through contact with Pearson's Ask the Expert Service or the Geography Subject Advisor both available from qualifications.pearson.com/en/subjects/geography

Appendix 5: Practical geographical enquiry process



Appendix 6: Fieldwork requirements

The table below specifies the minimum types and range of fieldwork (including qualitative, quantitative and secondary data) required for the options available.

Candidates are required to undertake fieldwork from topics in Paper 1 **and** Paper 2, so that they can complete the assessments.

| Enquiry process point | General focus and details of fieldwork |
|---|--|
| 1. Enquiry question | Students should have an opportunity to develop understanding of the kinds of questions that can be investigated through fieldwork for the chosen topic. Students should have an opportunity to develop a question(s) based on their location and the task. |
| 2. Fieldwork methods | Fieldwork data collection must include at least one quantitative and one qualitative method for each of the two investigations – details of these are found on <i>page 16</i> (physical geography) and <i>page 25</i> (human geography). Students should have an opportunity to consider sample size, sampling strategies and data-collection design to help them understand issues of reliability and accuracy of data. Students need to understand the purpose of each of the data collection methods for the investigation. |
| 3. Secondary data sources | Students must use at least two different secondary sources of data. |
| 4. Processing and presenting data | Both primary and secondary data should be processed, including the use of tally charts, calculation of means and calculation of percentages. Primary and secondary data should be presented in map form using simple GIS applications. Simple (pie, bar, line) and more complex (compound, radial, scatter) graphs should be used to present primary and secondary data. Appropriate ways should be used to present qualitative data. |
| 5. Analysis and explanation | Primary and secondary data should be analysed for meaning, both individually and together, to draw out links, contrasts and comparisons. |
| 6. Coming to conclusions | Conclusions drawn should relate to the extent to which the results from the investigation fit accepted theories and whether there are any further implications of the results for people and the environment. Conclusions must draw on both primary and secondary evidence, and students must consider anomalous and/or unexpected results. |
| 7. Reflecting on data, methods and conclusions | Students should include the accuracy and reliability of primary and secondary data and the extent to which conclusions are reliable. They should analyse possible ways to improve results and consider the extent to which these data collection techniques could be used for other fieldwork investigations. |

Appendix 7: Health and safety in the field

All centres must comply with their local and national rules/guidance, laws and good practice relating to health and safety, for example the requirements of relevant legislation and codes of practice in the UK, including the Department for Education document *Health and Safety: Advice on legal duties and powers for local authorities, school leaders, school staff and governing bodies* and the Health and Safety Executive document *School Trips and Outdoor Learning Activities: Tackling the health and safety myths*.

Centres must ensure safe working is an inherent part of practical learning, for example students know and understand the importance of ensuring their own safety and that of others. This could involve learners developing risk assessments as part of the preparation for fieldwork (Stage 3 – Design), for example by using Google Maps™ and Google Street View™ to assess likely hazards and/or risk.

Health and safety learning must include the concepts of:

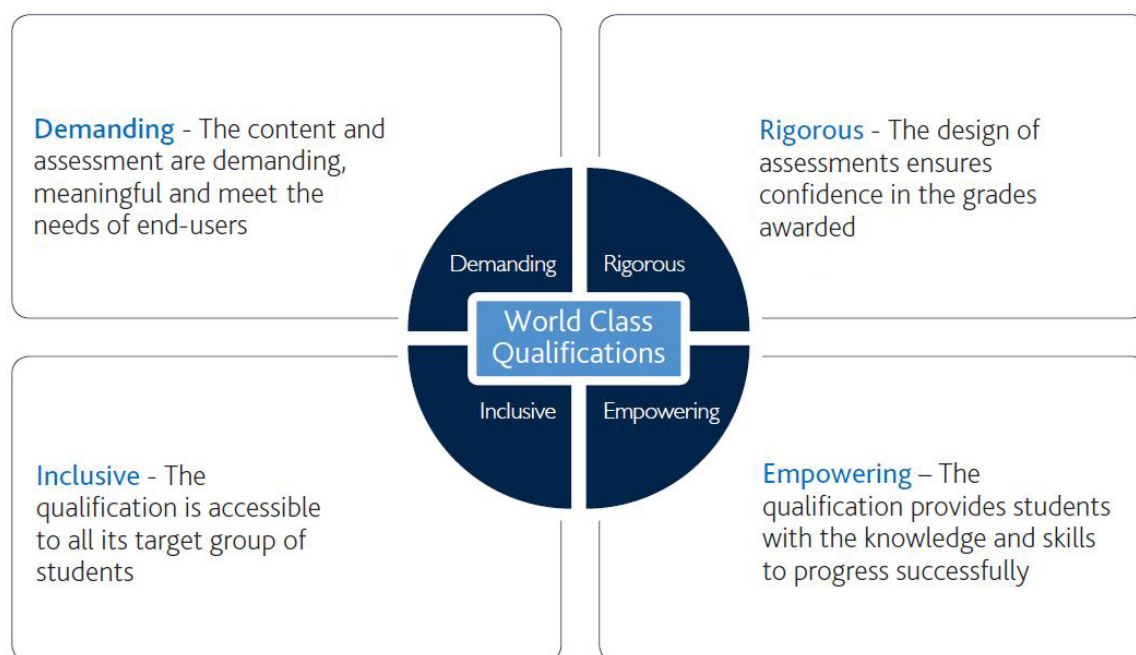
- hazard – the danger that could reasonably be expected to cause harm, e.g. contact with slippery rocks next to a stream
- impact/severity – how someone might be harmed
- risk – the chance that someone will be harmed by a particular hazard, e.g. a fall, slip or trip.

For example, a risk rating can be developed, based on likelihood and severity (or worst case outcome). When working in a river, the likelihood of slipping on wet rocks may be described as 'infrequent' (a score of 3/5), while the severity could be 'injury' (a score of 3/5). These two together give a risk-rating score of 9/25 ($3 \times 3/5 \times 5$), which would indicate that a control should be in place to minimise the chance of injury through slipping.

Additional support on this aspect of the specification is available in the Pearson Edexcel International GCSE in Geography teacher support materials.

Appendix 8: Pearson World Class Qualification design principles

Pearson's World Class Qualification design principles mean that all Edexcel qualifications are developed to be **rigorous, demanding, inclusive and empowering**.



We work collaboratively to gain approval from an external panel of educational thought leaders and assessment experts from across the globe. This is to ensure that Edexcel qualifications are globally relevant, represent world-class best practice in qualification and assessment design, maintain a consistent standard and support learner progression in today's fast-changing world.

Pearson's Expert Panel for World-class Qualifications is chaired by Sir Michael Barber, a leading authority on education systems and reform. He is joined by a wide range of key influencers with expertise in education and employability.

'I'm excited to be in a position to work with the global leaders in curriculum and assessment to take a fresh look at what young people need to know and be able to do in the 21st century, and to consider how we can give them the opportunity to access that sort of education.' Sir Michael Barber.

Endorsement from Pearson's Expert Panel for World class Qualifications for International GCSE development processes

December 2015

'We were chosen, either because of our expertise in the UK education system or because of our experience in reforming qualifications in other systems around the world as diverse as Singapore, Hong Kong, Australia and a number of countries across Europe.'

We have guided Pearson through what we judge to be a rigorous world-class qualification development process that has included:

- extensive international comparability of subject content against the highest-performing jurisdictions in the world
- benchmarking assessments against UK and overseas providers to ensure that they are at the right level of demand
- establishing External Subject Advisory Groups, drawing on independent subject-specific expertise to challenge and validate our qualifications.

Importantly, we have worked to ensure that the content and learning is future oriented, and that the design has been guided by Pearson's Efficacy Framework. This is a structured, evidence-based process which means that learner outcomes have been at the heart of this development throughout.

We understand that ultimately it is excellent teaching that is the key factor to a learner's success in education but as a result of our work as a panel we are confident that we have supported the development of Edexcel International GCSE qualifications that are outstanding for their coherence, thoroughness and attention to detail and can be regarded as representing world-class best practice.

Sir Michael Barber (Chair)

Chief Education Advisor
Pearson plc

Dr Peter Hill

Former Chief Executive ACARA

Professor Jonathan Osborne

Stanford University

Professor Dr Ursula Renold

Federal Institute of Technology,
Switzerland

Professor Janice Kay

Provost, University of Exeter

Jason Holt

CEO, Holts Group

Professor Sing Kong Lee

Professor, National Institute of Education in
Singapore

Bahram Bekhradnia

President, Higher Education Policy Institute

Dame Sally Coates

Director of Academies (South), United
Learning Trust

Professor Bob Schwartz

Harvard Graduate School of Education

Jane Beine

Head of Partner Development, John Lewis
Partnership

All titles correct as at December 2015

Appendix 9: Transferable skills

The need for transferable skills

In recent years, higher-education institutions and employers have consistently flagged the need for students to develop a range of transferable skills to enable them to respond with confidence to the demands of undergraduate study and the world of work.

The Organisation for Economic Co-operation and Development (OECD) defines skills, or competencies, as 'the bundle of knowledge, attributes and capacities that can be learned and that enable individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning.'^[1]

To support the design of our qualifications, the Pearson Research Team selected and evaluated seven global 21st-century skills frameworks. Following on from this process, we identified the National Research Council's (NRC) framework ^[2] as the most evidence-based and robust skills framework, and have used this as a basis for our adapted skills framework.

The framework includes cognitive, intrapersonal skills and interpersonal skills.

The NRC framework is included alongside literacy and numeracy skills.



The skills have been interpreted for this specification to ensure they are appropriate for the subject. All of the skills listed are evident or accessible in the teaching, learning and/or assessment of the qualification. Some skills are directly assessed. Pearson materials will support you in identifying these skills and developing these skills in students.

The table on the next page sets out the framework and gives an indication of the skills that can be found in geography and indicates the interpretation of the skill in this area. A full subject interpretation of each skill, with mapping to show opportunities for students' development is provided on the subject pages of our website: qualifications.pearson.com

¹ OECD – *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies* (OECD Publishing, 2012)

² Koenig J A – *Assessing 21st Century Skills: Summary of a Workshop* (National Research Council, 2011)

| | | | |
|-----------------------------|------------------------------------|---|---|
| Cognitive skills | Cognitive processes and strategies | <ul style="list-style-type: none"> • Critical thinking • Problem solving • Analysis • Reasoning/argumentation • Interpretation • Decision making • Adaptive learning • Executive function | <p>Critical thinking for using geographical concepts to synthesise information collected from the geographical enquiry to make judgements.</p> |
| | Creativity | <ul style="list-style-type: none"> • Creativity • Innovation | |
| Intrapersonal skills | Intellectual openness | <ul style="list-style-type: none"> • Adaptability • Personal and social responsibility • Continuous learning • Intellectual interest and curiosity | <p>Initiative for using different forms of media to investigate real world events, without guided learning.</p> |
| | Work ethic/ conscientiousness | <ul style="list-style-type: none"> • Initiative • Self-direction • Responsibility • Perseverance • Productivity • Self-regulation (metacognition, forethought, reflection) • Ethics • Integrity | |
| | Positive core self-evaluation | <ul style="list-style-type: none"> • Self-monitoring/self-evaluation/self-reinforcement | |
| Interpersonal skills | Teamwork and collaboration | <ul style="list-style-type: none"> • Communication • Collaboration • Teamwork • Cooperation • Empathy/perspective taking • Negotiation | <p>Collaboration for peer reviewing the work of others to offer constructive feedback.</p> |
| | Leadership | <ul style="list-style-type: none"> • Responsibility • Assertive communication • Self-presentation | |

Appendix 10: Glossary

| Term | Definition |
|-----------------------|--|
| Assessment objectives | The requirements that students need to meet to succeed in the qualification. Each assessment objective has a unique focus which is then targeted in examinations or coursework. Assessment objectives may be assessed individually or in combination. |
| External assessment | An examination that is held at the same time and place in a global region. |
| JCQ | Joint Council for Qualifications. This is a group of UK exam boards which develop policy related to the administration of examinations. |
| Linear | Linear qualifications have all assessments at the end of a course of study. It is not possible to take one assessment earlier in the course of study. |
| Raw marks | Raw marks are the actual marks that students achieve when taking an assessment. When calculating an overall grade raw marks often need to be converted so that it is possible to see the proportionate achievement of a student across all units of study. |

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visit qualifications.pearson.com

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