Pearson Edexcel

AS
Geography

Specification

Pearson Edexcel Level 3 Advanced Subsidiary GCE in Geography (8GE0)

First teaching from September 2016

First certification from 2017

Issue 4

Summary of Pearson Edexcel Level 3 Advanced Subsidiary GCE in Geography (8GEO) Specification Issue 4 changes

Summary of changes made between previous issue and this current issue	Page number
Amendments for consistency and clarification of wording and in the use of globe symbols: 2A2a, 2A3a, 2A8a, 2B1c, 2B3a, 2B3c, 2B5a, 2B5c, 2B7a, 2B9b, 2B11b, 2B12b, 3.1b, 4A8, 4A10 and 4B7b	17, 19, 20, 22, 23, 24, 25, 28, 32, 36, 37, 39, 42

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.

Contents

1 Introduction

Why choose Edexcel AS Geography?

We've listened to feedback from all parts of the geography subject community, including hundreds of fellow teachers. We've used this opportunity of curriculum change to redesign a qualification that is engaging and relevant to today's geographers – a qualification that enables your students to engage critically with real-world issues and places, apply their own geographical knowledge, understanding and skills to make sense of the world around them, and to help prepare them to succeed in their chosen pathway.

Engaging and contemporary issues-based approach

Our specifications offer an issues-based approach to studying geography, enabling students to explore and evaluate contemporary geographical questions and issues such as the consequences of globalisation and responses to hazards.

Supports progression to undergraduate level geography

The specification content gives students the opportunity to develop an in-depth understanding of physical and human geography, the complexity of people and environment questions and issues, and to become critical, reflective and independent learners.

Straightforward and flexible content structure

This specification includes two equally-weighted content areas of study, offering both compulsory and optional content and assessed through two external assessments.

AS and A Level qualifications that are co-teachable

Centres co-teaching AS and A Level can deliver Area of study 1: Dynamic Landscapes and Area of study 2: Dynamic Places in the first year, allowing students to be entered for the AS at the end of year 12.

Clear assessments that offer all students the chance to succeed

Externally-examined papers provide gradual progression in demand throughout the topics and consistent use of 11 different command words so it is clear what the question is asking.

Confidence in geographical skills and fieldwork

Content is framed by enquiry questions that encourage an investigative and evaluative approach to learning. We have signposted where and how geographical skills and fieldwork should be embedded in teaching. Our AS assessment will integrate the assessment of geographical skills with knowledge and understanding.

Holistic understanding of geography

This specification will encourage students to make links between different geographical themes, ideas and concepts through synoptic themes embedded in the compulsory content.

Support progression from Key Stage 4

The content builds on the understanding developed at KS4, avoiding unnecessary repetition while also ensuring that students new to the subject are appropriately supported.

Supporting you in planning and implementing this qualification

Planning

- Our **Getting Started** guide gives you an overview of the new AS and A Level qualifications to help you to get to grips with the changes to content and assessment and to help you understand what these changes mean for you and your students.
- We will give you editable AS and A Level **course planner** and **schemes of work** that you can adapt to suit your department.
- Our **mapping documents** highlight key differences between the new and 2008 qualifications.

Teaching and learning

- There will be lots of free teaching and learning support to help you deliver the new qualifications, including:
- topic packs for every topic, including key concepts and processes, place exemplification, and geographical skills
- support for embedding geographical skills and fieldwork into teaching
- training on fieldwork and geographical skills.

Preparing for exams

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

- additional specimen papers to support formative assessments and mock exams
- marked exemplars of student work in external assessments and the A Level non-examination assessment, with examiner commentaries
- training on how to use our mark schemes and mark our specimen papers,
- free standardisation events and trial marking materials for the new A Level non-examination assessment.

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.

Get help and support

Our subject advisor service, led by Jon Wolton, and online communities, will ensure you receive help and guidance from us and that you can share ideas and information with other teachers. You can sign up to receive e-newsletters from Jon to keep up to date with qualifications and product and service news.

Learn more at qualifications.pearson.com

Qualification at a glance

Content and assessment overview

The Pearson Edexcel Level 3 Advanced Subsidiary GCE in Geography consists of two externally-examined papers.

Students must complete all assessment in May/June in any single year.

Paper 1: Dynamic Landscapes (*Paper code: 8GE0/01)
Written examination: 1 hour and 45 minutes **50% of the qualification** **90 marks**
Content overview ● Area of study 1, Topic 1: Tectonic Processes and Hazards ● Area of study 1, Topic 2: Landscape Systems, Processes and Change – one sub-topic from either: 2A Glaciated Landscapes and Change **or** 2B Coastal Landscapes and Change.
Assessment overview An externally-assessed written examination comprising three sections. Students answer Section A and **either** Section B **or** Section C. **Section A** relates to Topic 1: Tectonic Processes and Hazards. **Section B** relates to Topic 2A: Glaciated Landscapes and Change **Section C** relates to Topic 2B: Coastal Landscapes and Change. The examination may include multiple-choice questions, short open, open response, calculations and resource-linked questions. The examination includes 12-mark and 16-mark extended writing questions. Calculators will be required. In optional Sections B or C, one question will assess fieldwork in relation to Glaciated Landscapes and Change or Coastal Landscapes and Change. Each section ends with one 16-mark synoptic question that links Topic 1 to Topics 2A and 2B in Sections B and C respectively.

*See *Appendix 9: Codes* for a description of this code and all other codes relevant to this qualification.

Paper 2: Dynamic Places (*Paper code: 8GE0/02)
Written examination: 1 hour and 45 minutes   *50% of the qualification*   *90 marks*
Content overview   • Area of study 2, Topic 3: Globalisation   • Area of study 2, Topic 4: Shaping Places– one sub-topic from either: 4A Regenerating Places **or** 4B Diverse Places.
Assessment overview   An externally-assessed written examination comprising three sections. Students answer Section A and **either** Section B **or** Section C.   **Section A** relates to Topic 3: Globalisation*.*   **Section B** relates to Topic 4A: Regenerating Places   **Section C** relates to Topic 4B: Diverse Places   The examination may include multiple-choice questions, short open, open response, calculations and resource-linked questions. The examination includes 12-mark and   16-mark extended-writing questions. Calculators will be required.   In optional Sections B or C one question will assess fieldwork in relation to Regenerating Places or Diverse Places. Each section ends with one 16-mark synoptic question that links Topic 3 to Topics 4A and 4B in Sections B and C respectively.

2 Subject content and assessment information

The subject content sets out the knowledge, understanding and skills relevant to this qualification. Together with the assessment information, it provides the framework within which centres create their programmes of study, so ensuring progression from Key Stage 4 national curriculum requirements and the possibilities for development into A Level.

Qualification aims and objectives

This specification for the discipline of geography encourages students to gain enjoyment, satisfaction and a sense of achievement as they develop their knowledge and understanding of the subject. This AS course will enable students to be inspired by their geographical understanding, to engage critically with real-world issues and places, and to apply their geographical knowledge, theory and skills to the world around them. Students will grow as independent thinkers and as informed and engaged citizens, who understand the role and importance of geography as one of the key disciplines relevant to understanding the world's changing peoples, places and environments.

The aims and objectives of this qualification are to enable students to build on their GCSE knowledge and skills to:

- develop their knowledge of locations, places, processes and environments, at all geographical scales from local to global across the specification as a whole
- develop an in-depth understanding of the selected core- and non-core processes in physical and human geography at a range of temporal and spatial scales, and of the concepts that illuminate their significance in a range of locational contexts
- recognise and be able to analyse the complexity of people–environment interactions at all geographical scales, and appreciate how they underpin understanding of some of the key issues facing the world today
- develop their understanding of, and ability to apply, the concepts of place, space, scale and environment, that underpin both the national curriculum and GCSE, including developing a more nuanced understanding of these concepts
- gain understanding of specialised concepts relevant to the core- and non-core content. These must include the concepts of causality, systems, equilibrium, feedback, inequality, representation, identity, globalisation, interdependence, mitigation and adaptation, sustainability, risk, resilience and thresholds
- improve their understanding of the ways in which values, attitudes and circumstances have an impact on the relationships between people, place and environment, and develop the knowledge and ability to engage, as citizens, with the questions and issues arising ('circumstances' in this case refers to the context of people's lives, and the socio-economic and political milieu in which they find themselves)
- become confident and competent in selecting, using and evaluating a range of quantitative and qualitative skills and approaches (including observing, collecting and analysing geo-located data) and applying them as an integral part of their studies
- understand the fundamental role of fieldwork as a tool to understand and generate new knowledge about the real world, and become skilled at planning, undertaking and evaluating fieldwork in appropriate situations
- apply geographical knowledge, understanding, skills and approaches in a rigorous way to a range of geographical questions and issues, including those identified in fieldwork, recognising both the contributions and limitations of geography
- develop as critical and reflective learners, able to articulate opinions, suggest relevant new ideas and provide evidenced argument in a range of situations

- build on knowledge of contexts, locations, places and environments, by extending the scope and scale of study, the variety of physical, social, economic, cultural and political contexts encountered, the depth of conceptual understanding required, and the range of spatial and temporal scales included
- develop a deep understanding of both physical and human processes, applying this understanding to interrogate people–environment interactions and people–place connections at all scales from local to global
- build on and reinforce conceptual understanding underpinning GCSE, experiencing an extended demand that includes a wider range of more complex and specialised concepts that relate to the core and non-core content
- engage with models, theories and generalisations, and develop a mature understanding of the nature and limitations of objectivity and the significance of human values and attitudes
- develop understanding of the rationale for, and applications of, skills and approaches used, showing a considerable degree of independence in selecting and using a wide range of geographical methods, techniques and skills, involving both qualitative and quantitative methods
- undertake fieldwork that encourages them to apply and evaluate theory in the real world.

Geographical skills

This qualification requires students to evidence a variety of geographical skills, showing a critical awareness of the appropriateness and limitations of different methods, skills and techniques.

Full details of the required geographical skills are given in *Appendix 1: Geographical skills.*

Fieldwork

AS students must complete a minimum of **two** days of fieldwork. Fieldwork must be carried out in relation to processes in physical and human geography. This is a Department for Education (DfE) requirement. Centres will be required to provide evidence of this fieldwork in the form of a written fieldwork statement. The fieldwork statement represents a true and accurate written declaration made by a centre to Pearson, confirming that a student to which that centre has delivered the AS Geography assessment has undertaken geographical fieldwork over two days and in both physical and human environments. Pearson will publish the final deadline date for submission of this form on our website in May of each year. Failure to return the fieldwork statement on time will constitute malpractice on the part of the centre, see *page 51.*

Full details of the required fieldwork skills are provided in *Appendix 2: Fieldwork skills.*

AS fieldwork will be externally assessed in both AS Paper 1 and AS Paper 2. Students will answer **one** fieldwork question in each examination. The fieldwork questions will assess:

- knowledge and understanding of investigating geographical questions and issues
- interpretation, analysis and evaluation of information collected in a fieldwork context
- ability to construct arguments and draw conclusions in relation to the student's own fieldwork experience.

Our specification requires AS students to carry out fieldwork in relation to:

Area of study 1 Topic 2A: Glaciated Landscapes and Change **OR** 2B: Coastal Landscapes and Change

AND Area of study 2 Topic 4A: Regenerating Places **OR 4B:** Diverse Places.

The following fieldwork themes are recommended to help students meet the Fieldwork requirement of 2 days, related to human and physical processes:

Area of study 1: Topic 2 Option 2A
Glaciated Landscapes and Change (relict or active, upland or lowland*)
Students could investigate questions relating to the following themes, and then use those questions to devise an appropriate methodology: • changing glacial and/or fluvio-glacial sediments • glacial and/or fluvio-glacial landform morphology and orientation • the impact of human activity on fragile glaciated landscapes.

Area of study 1: Topic 2 Option 2B
Coastal Landscapes and Change (relevant in a single stretch of coast or multiple coastal locations*)
Students could investigate questions relating to the following themes, and then use those questions to devise an appropriate methodology: • changing coastal sediments • changing coastal profiles • success of coastal management approaches.

Area of study 2 Topic 4 Option 4A
Regenerating Places (relevant to a single urban area **OR** rural area*)
Students could investigate questions relating to the following themes, and then use those questions to devise an appropriate methodology: • evidence of regeneration strategies • public opinion on local regeneration strategies • historical change in the area.

Area of study 2 Topic 4 Option 4B
Diverse Places (relevant to a single urban area OR rural area*)
Students could investigate questions relating to the following themes, and then use those questions to devise an appropriate methodology: ● evaluation of areas that have potential for improvement ● attitudes towards geo-demographic change ● extent of deprivation in an area.

*It is key that students have access to appropriate opportunities for meaningful research. Teachers must also ensure that the fieldwork activities and environments experienced by students allow them to develop and demonstrate the full range, variety and diversity of fieldwork skills required.

Health and safety in fieldwork

All centres must comply with the new requirements (2011) of relevant legislation and codes of practice, including the *Department for Education health and safety guidance for schools* (www.education.gov.uk/schools/adminandfinance/healthandssafety) and the *Health and Safety Executive – School trips and outdoor learning activities* (www.hse.gov.uk/services/education/school-trips.pdf).
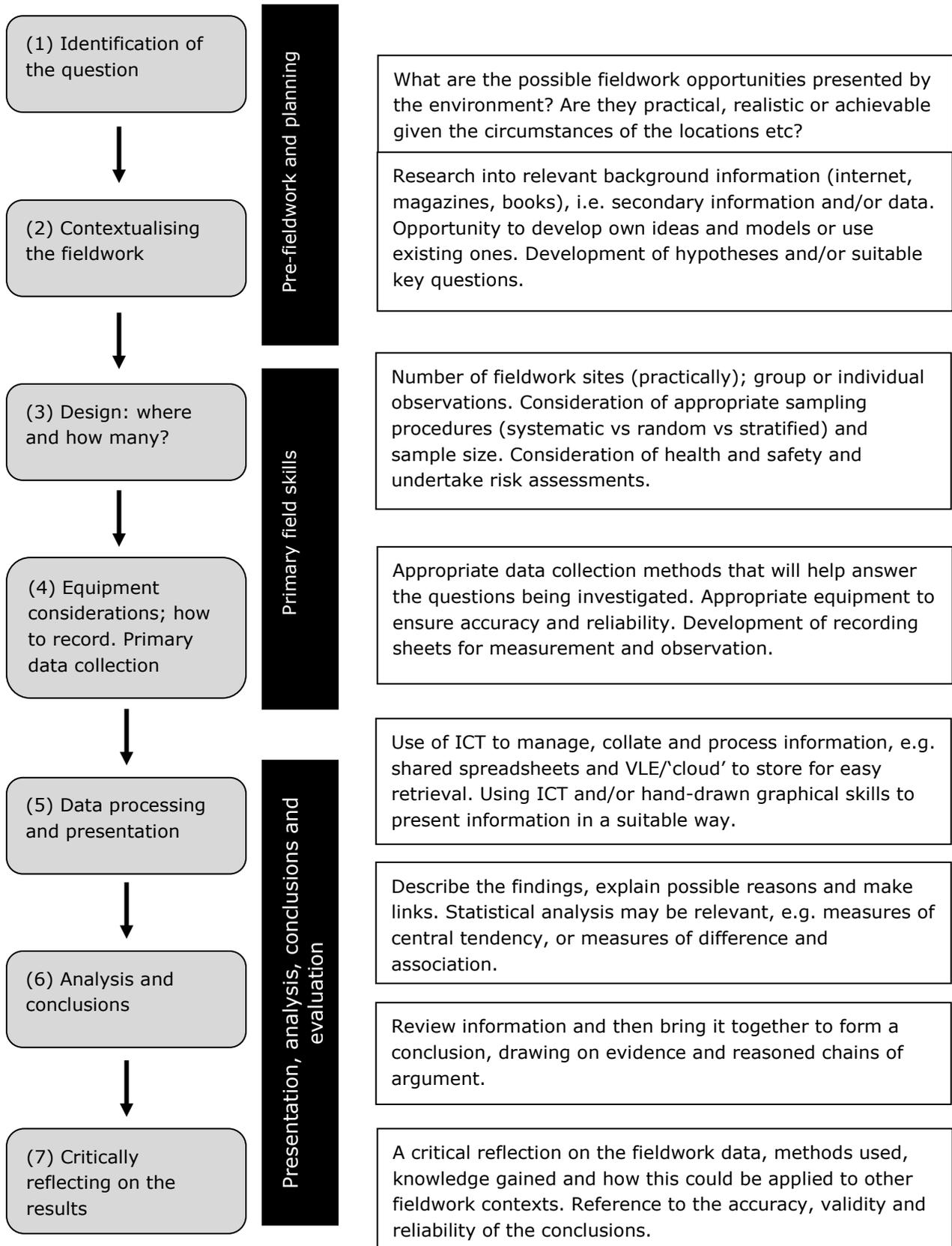
Centres should also develop likely their own mechanisms so that students know the importance of ensuring their own safety and that of others. This could include developing risk assessments as part of the preparation for fieldwork, for example by using Google Maps and Google StreetView to assess hazards and risk. Students who might be lone working should be provided with additional information and guidance and the centre must have suitable policies and procedures for lone working.

Teachers may offer students specific advice on the availability of equipment and on how to collect data in a safe manner at all times. Teachers should discuss relevant health and safety issues with students, for example personal safety along rivers and coasts, as well as safety when conducting questionnaires. Students are required to complete their own risk assessments.

A practical geographical enquiry process

Good practice should allow for students to follow the route to enquiry and for students to be fully engaged in the decision-making processes in relation to the fieldwork and research, as outlined in the enquiry process diagram on the following page.

Recommended stages of geographical enquiry together with guidance on possible activities.

Stage	Phase	Guidance
(1) Identification of the question	Pre-fieldwork and planning	What are the possible fieldwork opportunities presented by the environment? Are they practical, realistic or achievable given the circumstances of the locations etc?
(2) Contextualising the fieldwork		Research into relevant background information (internet, magazines, books), i.e. secondary information and/or data. Opportunity to develop own ideas and models or use existing ones. Development of hypotheses and/or suitable key questions.
(3) Design: where and how many?	Primary field skills	Number of fieldwork sites (practically); group or individual observations. Consideration of appropriate sampling procedures (systematic vs random vs stratified) and sample size. Consideration of health and safety and undertake risk assessments.
(4) Equipment considerations; how to record. Primary data collection		Appropriate data collection methods that will help answer the questions being investigated. Appropriate equipment to ensure accuracy and reliability. Development of recording sheets for measurement and observation.
(5) Data processing and presentation	Presentation, analysis, conclusions and evaluation	Use of ICT to manage, collate and process information, e.g. shared spreadsheets and VLE/'cloud' to store for easy retrieval. Using ICT and/or hand-drawn graphical skills to present information in a suitable way.
(6) Analysis and conclusions		Describe the findings, explain possible reasons and make links. Statistical analysis may be relevant, e.g. measures of central tendency, or measures of difference and association.
		Review information and then bring it together to form a conclusion, drawing on evidence and reasoned chains of argument.
(7) Critically reflecting on the results		A critical reflection on the fieldwork data, methods used, knowledge gained and how this could be applied to other fieldwork contexts. Reference to the accuracy, validity and reliability of the conclusions.

How to use the content section of the specification

Overview

Each topic begins with an overview. This provides an explanation of the relevance of the topic to modern geography. It also outlines links between the topic and other areas of the specification. The overview does not form part of the assessed content, but could be used by teachers when introducing a new topic to students.

Enquiry questions

Each topic contains three or four enquiry questions. The enquiry questions should form the basis for the study of that topic. Enquiry questions encourage active learning and an investigative, critically evaluative approach. An enquiry question, combined with the key ideas in the left-hand column of the specification content, can be used as the starting point to develop learning objectives for one or more lessons.

Guidance for integrating geographical skills

This qualification requires students to evidence a variety of geographical skills, showing a critical awareness of the appropriateness and limitations of different methods, skills and techniques.

Guidance on integrating these skills has been provided at the end of each content topic under the heading *Guidance for integrating geographical skills*. This guidance provides suggested opportunities for integrating the full range of skills outlined in the geographical skills appendix. Opportunities to integrate geographical skills are indicated by bracketed numbers in the detailed content, (1) for example. These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study.

Full details of the required geographical skills are provided in *Appendix 1: Geographical skills.*

Synoptic themes within the compulsory content areas

This specification contains **three** synoptic themes. These are over-arching themes designed to help students make links between different geographical themes, ideas and concepts. The synoptic themes incorporate specialist geographical concepts, namely: causality, systems, feedback, inequality, identity, globalisation, interdependence, mitigation and adaption, sustainability, risk, resilience and thresholds. The synoptic themes are highlighted in the specification in ***bold italics***.

In this qualification, the 16-mark synoptic questions in Paper 1 link Topic 1 to Topic 2A or 2B depending on question choice. In Paper 2, Topic 3 is linked to Topic 4A or 4B depending on question choice.

The three synoptic themes are:

1. Players **(P)**	Who are the different players (individuals, groups and organisations, stakeholders) involved in geographical issues and decisions (interdependence, globalisation, systems)? Why do some players have greater influence than others (inequality)? This includes: international players (intergovernmental organisations (IGOs)), national and local government, large and small private businesses, transnational corporations (TNCs), pressure groups and non-governmental organisations (NGOs) as well as others in particular contexts.
2. Attitudes and actions **(A)**	Why do attitudes to geographical issues (identity) vary so greatly and how does this influence actions (policies and choice of strategy and management methods)? Influences on values and attitudes include identity, political and religious views, priority given to profit, importance of social justice and equality and attitudes towards the natural environment (conservation and sustainability versus exploitation).
3. Futures and uncertainties **(F)**	There are contrasting approaches when making decisions about geographical issues that will affect people in the future. These include business as usual, priority towards more sustainable strategies and radical alternatives (mitigation and adaptation). Choice of objective will affect both people and the environment in very different ways (risk, resilience and thresholds). The outcomes of choices made today are uncertain for a range of reasons, including scientific, demographic, economic and political uncertainty.

Place contexts

Where the detailed content in the specification must be studied in context, this is indicated by brackets containing the symbol ⊕, followed in some cases by suggested place contexts. These suggestions are not compulsory, and a similar suitable context could be chosen. The choice of place contexts is designed to include developed, emerging and developing economies, and this will be reflected in the choice of location and over the examination cycle.

Area of study 1: Dynamic Landscapes

Topic 1: Tectonic Processes and Hazards

Overview

Tectonic hazards – earthquakes, volcanic eruptions and secondary hazards such as tsunamis – represent a significant risk in some parts of the world. This is especially the case where active tectonic plate boundaries interact with areas of high population density and low levels of development. Resilience in these places can be low, and the interaction of physical systems with vulnerable populations can result in major disasters. An in-depth understanding of the causes of tectonic hazards is key to both increasing the degree to which they can be managed, and putting in place successful responses that can mitigate social and economic impacts and allow humans to adapt to hazard occurrence.

Content

Enquiry question 1: Why are some locations more at risk from tectonic hazards?		
Key idea	**Detailed content**	
1.1 The global distribution of tectonic hazards can be explained by plate boundary and other tectonic processes.	a.	The global distribution and causes of earthquakes, volcanic eruptions and tsunamis. (1)
	b.	The distribution of plate boundaries resulting from divergent, convergent and conservative plate movements (oceanic, continental and combined situations).
	c.	The causes of intra-plate earthquakes, and volcanoes associated with hot spots from mantle plumes.
1.2 There are theoretical frameworks that attempt to explain plate movements.	a.	The theory of plate tectonics and its key elements (the earth's internal structure, mantle convection, palaeomagnetism and sea floor spreading, subduction and slab pull).
	b.	The operation of these processes at different plate margins (destructive, constructive, collision and transform). (2)
	c.	Physical processes impact on the magnitude and type of volcanic eruption, and earthquake magnitude and focal depth (Benioff zone).
1.3 Physical processes explain the causes of tectonic hazards.	a.	Earthquake waves (P, S and L waves) cause crustal fracturing, ground shaking and secondary hazards (liquefaction and landslides).
	b.	Volcanoes cause lava flows, pyroclastic flows, ash falls, gas eruptions, and secondary hazards (lahars, jökulhlaups).
	c.	Tsunamis can be caused by sub-marine earthquakes at subduction zones as a result of sea-bed and water column displacement. (3)

Enquiry question 2: Why do some tectonic hazards develop into disasters?		
Key idea	**Detailed content**	
1.4 Disaster occurrence can be explained by the relationship between hazards, vulnerability, resilience and disaster.	a.	Definition of a natural hazard and a disaster, the importance of vulnerability and a community's threshold for resilience, the hazard risk equation.
	b.	The Pressure and Release model (PAR) and the complex inter-relationships between the hazard and its wider context.
	c.	The social and economic impacts of tectonic hazards (volcanic eruptions, earthquakes and tsunamis) on the people, economy and environment of contrasting locations in the developed, emerging and developing world.
1.5 Tectonic hazard profiles are important to an understanding of contrasting hazard impacts, vulnerability and resilience.	a.	The magnitude and intensity of tectonic hazards is measured using different scales (Mercalli, Moment Magnitude Scale (MMS) and Volcanic Explosivity Index (VEI)).
	b.	Comparing the characteristics of earthquakes, volcanoes and tsunamis (magnitude, speed of onset and areal extent, duration, frequency, spatial predictability) through hazard profiles.
	c.	Profiles of earthquake, volcano and tsunami events showing the severity of social and economic impact in developed, emerging and developing countries. (4)
1.6 Development and governance are important in understanding disaster impact and vulnerability and resilience.	a.	Inequality of access to education, housing, healthcare and income opportunities can influence vulnerability and resilience.
	b.	Governance *(P: local and national government)* and geographical factors (population density, isolation isolation/accessibility, degree of urbanisation) influence vulnerability and a community's resilience.
	c.	Contrasting hazard events in developed, emerging and developing countries to show the interaction of physical factors and the significance of context in influencing the scale of disaster. (5)

Enquiry question 3: How successful is the management of tectonic hazards and disasters?		
Key idea	**Detailed content**	
1.7 Understanding the complex trends and patterns for tectonic disasters helps explain differential impacts.	a.	Tectonic disaster trends since 1960 (number of deaths, numbers affected, level of economic damage) in the context of overall disaster trends. (6); research into the accuracy and reliability of the data to interpret complex trends.
	b.	Tectonic mega-disasters can have regional or even global significance in terms of economic and human impacts. (🌐 2004 Asian tsunami, 2010 Eyafjallajokull eruption in Iceland (global interdependence) and 2011 Japanese tsunami (energy policy)).
	c.	The concept of a multiple-hazard zone and how linked hydrometeorological hazards sometimes contribute to a tectonic disaster (🌐 the Philippines).
1.8 Theoretical frameworks can be used to understand the predication, impact and management of tectonic hazards.	a.	Prediction and forecasting *(P: role of scientists)* accuracy depend on the type and location of the tectonic hazard.
	b.	The importance of different stages in the hazard management cycle (response, recovery, mitigation, preparedness). *(P: role of emergency planners)*
	c.	Use of Park's Model to compare the response curve of hazard events, comparing areas at different stages of development.
1.9 Tectonic hazard impacts can be managed by a variety of mitigation and adaptation strategies, which vary in their effectiveness.	a.	Strategies to modify the event include land-use zoning, hazard – resistant design and engineering defences as well as diversion of lava flows. *(P: role of planners, engineers)* (7)
	b.	Strategies to modify vulnerability and resilience include hi-tech monitoring, prediction, education, community preparedness and adaptation. *(F: models forecasting disaster impacts with and without modification)*
	c.	Strategies to modify loss include emergency, short- and longer-term aid and insurance *(P: role of NGOs and insurers)* and the actions of affected communities themselves.

Guidance for integrating geographical skills for Topic 1

The following skills provide suggested opportunities for integrating the full range of skills outlined in the geographical skills appendix (*Appendix 1*). These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study.

(1) Analysis of hazard distribution patterns on world- and regional scale maps.

(2) Use of block diagrams to identify key features of different plate boundary settings.

(3) Analysis of tsunami time-travel maps to aid prediction.

(4) Use of correlation techniques to analyse links between magnitude of events, deaths and damage.

(5) Statistical analysis of contrasting events of similar magnitude to compare deaths and damage.

(6) Interrogation of large data sets to assess data reliability and to identify and interpret complex trends.

(7) Use of Geographic Information Systems (GIS) to identify hazard risk zones and degree of risk related to physical and human geographical features.

Topic 2: Landscape Systems, Processes and Change

Option 2A: Glaciated Landscapes and Change

Overview

Ice sheets and glaciers operate within a landscape system as glacial processes of erosion, transport and deposition combine with meteorological and climatological processes and interact with geological and lithological processes to produce distinctive landscapes. The landscapes can be both present day and relict and can occur in both upland and lowland areas. These landscapes are being changed by both physical processes and human activities which pose unique threats due to the low level of resilience found in these areas. Study must include examples of landscapes from areas inside and outside the UK.

Content

Enquiry question 1: How has climate change influenced the formation of glaciated landscapes over time?		
Key idea		**Detailed content**
2A.1	The causes of longer- and shorter climate change, which have led to icehouse-greenhouse changes.	a. A chronology of multiple glacial and interglacial periods caused by Pleistocene climate change.
		b. The long-term factors leading to climate change: Milankovitch cycles as the primary driver and the shorter-term role of variations in solar output (1), and volcanic eruptions.
		c. The characteristics and causes of shorter-term climate events: Loch Lomond Stadial (Pleistocene) and the Little Ice Age (Holocene).
2A.2	Present and past Pleistocene distribution of ice cover.	a. The definition and importance of the cryosphere and its role in global systems and classification of ice masses by scale and location (ice sheets, ice caps, cirque and valley glaciers, and ice fields) and polar and temperate environments.
		b. The present-day distribution of high latitude ice sheets and evidence for Pleistocene ice sheet extent.
		c. The present-day distribution of high altitude glaciated upland landscapes and evidence of relict landscapes from the Pleistocene. (2)
2A.3	Periglacial processes produce distinctive landscapes.	a. Distribution of past and present periglacial landscapes which are underlain by continuous, discontinuous and sporadic areas of permafrost with a seasonally active layer.
		b. Periglacial processes include nivation, frost heave, freeze-thaw weathering and solifluction as well as high winds and meltwater erosion.
		c. The formation of often unique periglacial landforms (ice wedges, patterned ground, pingos, loess) contributes towards the occurrence of distinctive periglacial landscapes (⊕ Tundra environments of northern Russia or northern Canada).

Enquiry question 2: What processes operate within glacier systems?		
Key idea	**Detailed content**	
2A.4 Mass balance is important in understanding glacial dynamics and the operation of glaciers as systems.	a.	Glacial mass balance system and the relationship between accumulation and ablation in the maintenance of equilibrium. (3) (🌐 Greenland Ice Sheet). The importance of positive and negative feedback.
	b.	The process of accumulation (direct snowfall, avalanches and wind deposition) and the process of ablation (melting, sublimation, calving, evaporation and avalanches).
	c.	The reasons for the variations in the rates of accumulation and ablation, and the impact these variations have on the mass balance over different timescales.
2A.5 Different processes explain glacial movement and variations in rates.	a.	Polar and temperate glaciers have different rates of movement.
	b.	There are different processes that are important in the movement of glaciers (basal slip, regelation creep, internal deformation).
	c.	A number of factors control the rate of movement (altitude, slope, lithology, size and variations in mass balance) with both positive and negative feedback in the system. (4)
2A.6 The glacier landform system.	a.	Glaciers alter landscapes through a number of processes: details of erosion, entrainment, transport and deposition.
	b.	Glacial landforms develop at macro-, meso- and micro-scales with distinctive morphologies in process environments, such as subglacial, marginal, proglacial and periglacial.
	c.	These landforms create a number of distinctive landscapes in upland and lowland areas that can be used to study the extent of ice cover.

Enquiry question 3: How do glacial processes contribute to the formation of glacial landforms and landscapes?		
Key idea	**Detailed content**	
2A.7 Glacial erosion creates distinctive landforms and contributes to glaciated landscapes.	a.	Glacial erosional processes (abrasion, quarrying, plucking, crushing and basal melting, combined with subaerial freeze thaw and mass movement).
	b.	The processes leading to the formation of landforms associated with cirque and valley glaciers (cirques/corries (5), arêtes, pyramidal peaks, glacial troughs, truncated spurs/hanging valleys and ribbon lakes).
	c.	The formation of landforms due to ice sheet scouring (roches moutonnées, knock and lochan, crag and tail) and the influence of differential geology.
2A.8 Glacial deposition creates distinctive landforms and contributes to glaciated landscapes.	a.	The formation of glacial (ice-contact) depositional features (medial, lateral, recessional and terminal moraines and drumlins).
	b.	The formation of lowland depositional features (till plains, lodgement and ablation till). (6)
	c.	The assemblage of landforms can be used to reconstruct former ice extent, movement and provenance (erratics, moraines, crag and tail, drumlin orientation). (7)
2A.9 Glacial meltwater plays a significant role in creating distinctive landforms and contributes to glaciated landscapes.	a.	The processes of water movement within the glacial system (supraglacial, englacial and sub-glacial flows).
	b.	Glacial and fluvioglacial deposits have different characteristics (stratification, sorting, imbrication and grading). (8)
	c.	The formation of fluvioglacial landforms; ice contact features (kames, eskers and kame terraces) and proglacial features (sandurs, proglacial lakes, meltwater channels, and kettleholes).

Enquiry question 4: How are glaciated landscapes used and managed today?	
Key idea	**Detailed content**
2A.10 Glacial and periglacial landscapes have intrinsic cultural, economic and environmental value.	a. Relict and active glaciated landscapes have environmental and cultural value (polar scientific research, wilderness recreation, and spiritual/religious associations). ***(A: attitudes range from exploitation to preservation)***
	b. Glaciated landscapes are important economically (farming, mining, hydroelectric power, tourism, forestry) to include a study of contrasting environments around the world.
	c. Glaciated and periglacial landscapes have a unique biodiversity (tundra) and play an important role in the maintenance of natural systems (water and carbon cycles).
2A.11 There are threats facing fragile active and relict glaciated upland landscapes.	a. Glaciated landscapes face varying degrees of threat from both natural hazards (avalanches and glacial outburst floods) and human activities (leisure and tourism, reservoir construction, urbanisation) (🌐 Alpine Valleys).
	b. Human activity can degrade the landscape and fragile ecology of glaciated landscapes (soil erosion, trampling, landslides, deforestation). ***(A: direct actions by players reduce resilience)***
	c. Global warming is having a major impact on glacial mass balances, which in turn risks disruption of the hydrological cycle (meltwater, river discharge, sediment yield, water quality) (🌐 Himalayan Glaciers). (9) ***(A: indirect actions by players alter natural systems)***
2A.12 Threats to glaciated landscapes can be managed using a spectrum of approaches.	a. Different stakeholders (conservationists, local and regional government, global organisations, NGOs) are involved in managing the challenges posed by glaciated landscapes, using a spectrum of approaches from protection through to sustainable management and multiple economic use (🌐 Yosemite Valley). ***(A: actions range from exploitation to preservation)***
	b. Legislative frameworks are used to protect and conserve landscapes by conservation and management at a variety of scales.
	c. Climate warming is a context risk, meaning that successful management of these unique and fragile landscapes is increasingly challenging, with a need for coordinated approaches at global, national and local scale. ***(F: this risk is creating an uncertain future and needs mitigation and adaptation)***

Guidance for integrating geographical skills for Topic 2 Option 2A

The emphasis of students' study must be on the use of quantitative geographical skills, including developing observation skills, measurement and geo-spatial mapping skills, together with data manipulation and statistical skills applied for field measurement. Qualitative approaches may be used if appropriate. The following guidance on integrating skills gives suggestions of opportunities to meet these requirements. These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study. The full range of skills is outlined in the geographical skills appendix (*Appendix 1*).

(1) Graphical analysis of reconstructed climate versus landform evidence for past glacial/interglacial periods.

(2) Comparison of past and present distribution of glaciated landscapes using global and regional maps.

(3) Use of numerical data to calculate simple mass balance and equilibrium line position; use of GIS to identify main features of glacier types and assess glacier health.

(4) Use of measures of central tendency to compare rates of glacier movement.

(5) Cirque orientation analysis using large-scale maps (OS maps); calculating Spearman's rank correlations of height of basin, size of basin and orientation and commenting on the significance of the correlation.

(6) Till fabric analysis using rose diagrams.

(7) Use of British Geological Society (BGS) glacial drift maps, Ordnance Survey (OS) maps, GIS and fieldwork results to reconstruct past ice extent and ice flow direction.

(8) Use of student t-test to analyse changes in sediment size and shape in outwash plains; central tendency analysis of both glacial and fluvioglacial deposits (comparison of size, shape and degree of sorting of clasts).

(9) Numerical analysis of mean rates of glacial recession in different global regions.

(10) Drumlin morphometry and orientation survey to measure correlation of height, length and elongation ratio. Statistical comparison of two data sets from contrasting locations.

NB: geographical skills should use data and images from areas inside and outside the UK.

Topic 2: Landscape Systems, Processes and Change

Option 2B: Coastal Landscapes and Change

Overview

Coastal landscapes develop due to the interaction of winds, waves and currents, as well as through the contribution of both terrestrial and offshore sources of sediment. These flows of energy and variations in sediment budgets interact with the prevailing geological and lithological characteristics of the coast to operate as coastal systems and produce distinctive coastal landscapes, including those in rocky, sandy and estuarine coastlines. These landscapes are increasingly threatened from physical processes and human activities, and there is a need for holistic and sustainable management of these areas in all the world's coasts. Study must include examples of landscapes from inside and outside the UK.

Content

Enquiry question 1: Why are coastal landscapes different and what processes cause these differences?		
Key idea	**Detailed content**	
2B.1 The coast, and wider littoral zone, has distinctive features and landscapes.	a.	The littoral zone consists of backshore, nearshore and offshore zones, includes a wide variety of coastal types and is a dynamic zone of rapid change.
	b.	Coasts can be classified by using longer term criteria such as geology and changes of sea level or shorter term processes such as inputs from rivers, waves and tides.
	c.	Rocky coasts (high and low relief) result from resistant geology (withstands erosive forces of sea, rain and wind), often in a high-energy environment, whereas coastal plain landscapes (sandy and estuarine coasts) are found near areas of low relief and result from supply of sediment from different terrestrial and offshore sources, often in a low-energy environment.
2B.2 Geological structure influences the development of coastal landscapes at a variety of scales.	a.	Geological structure is responsible for the formation of concordant and discordant coasts.
	b.	Geological structure influences coastal morphology: Dalmatian and Haff type concordant coasts and headlands and bays on discordant coasts.
	c.	Geological structure (jointing, dip, faulting, folding) is an important influence on coastal morphology and erosion rates, and also on the formation of cliff profiles and the occurrence of micro-features, e.g. caves (⊕ Glamorgan Heritage Coast). (2)
2B.3 Rates of coastal recession and stability depend on lithology and other factors.	a.	Bedrock lithology (igneous, sedimentary, metamorphic) and unconsolidated material (boulder clay) geology are important in understanding rates of coastal recession.
	b.	Differential erosion of alternating strata in cliffs (permeable/impermeable, resistant/less resistant) produces complex cliff profiles and influences recession rates. (3)
	c.	Vegetation is important in stabilising sandy coastlines through dune successional development and salt marsh successional development in estuarine areas.

Enquiry question 2: How do characteristic coastal landforms contribute to coastal landscapes?		
Key idea		**Detailed content**
2B.4	Marine erosion creates distinctive coastal landforms and contributes to coastal landscapes.	a. Different wave types (constructive/destructive) influence beach morphology and beach sediment profiles, which vary at a variety of temporal scales from short term (daily) through to longer periods. (4)
		b. The importance of erosion processes (hydraulic action, corrosion, abrasion, attrition) and how they are influenced by wave type, size and lithology.
		c. Erosion creates distinctive coastal landforms (wave cut notches, wave cut platforms, cliffs, the cave-arch-stack-stump sequence).
2B.5	Sediment transport and deposition create distinctive landforms and contribute to coastal landscapes.	a. Sediment transportation is influenced by the angle of wave attack, the process of longshore drift, tides and currents. (5)
		b. Transportation and deposition processes produce distinctive coastal landforms (beaches, recurved and double spits, offshore bars, barrier beaches and bars, tombolos and cuspate forelands), which can be stabilised by plant succession.
		c. The Sediment Cell concept (sources, transfers and sinks) is important in understanding the coast as a system of dynamic equilibrium, with both negative and positive feedback. (⊕ Portland Bill to Selsey Bill).
2B.6	Subaerial processes of mass movement and weathering influence coastal landforms and contribute to coastal landscapes.	a. Weathering (mechanical, chemical, biological) is important in sediment production and influences rates of recession.
		b. Mass movement (blockfall, rotational slumping, landslides) is important on some coasts with weak and/or complex geology.
		c. Mass movement creates distinctive landforms (rotational scars, talus scree slopes, terraced cliff profiles).

Enquiry question 3: How do coastal erosion and sea-level change alter the physical characteristics of coastlines and increase risks?		
Key idea		**Detailed content**
2B.7	Sea level change influences coasts on different timescales.	a. Longer-term sea level changes result from a complex interplay of factors both eustatic (ice formation/melting, thermal changes) and isostatic (post glacial adjustment, subsidence, accretion and tectonics).
		b. Sea level change has produced emergent coastlines (raised beaches with fossil cliffs) and submergent coastlines (rias, fjords and Dalmatian). (6)
		c. Contemporary sea level change from global warming or tectonic activity is a risk to some coastlines.
2B.8	Rapid coastal retreat causes threats to people at the coast.	a. Rapid coastal recession is caused by physical factors (geological and marine) but can be influenced by human actions (dredging or coastal management) (⊕ the Nile Delta, or Guinea coastline or Californian coastline). *(A: actions of different players may alter natural systems)*
		b. Subaerial processes (weather and mass movement) work together to influence rates of coastal recession.
		c. Rates of recession are not constant and are influenced by different factors both short- and longer term (wind direction/fetch, tides, seasons, weather systems and occurrence of storms). (7)
2B.9	Coastal flooding is a significant and increasing risk for some coastlines.	a. Local factors increase flood risk on some low-lying and estuarine coasts (height, degree of subsidence, vegetation removal); global sea level rise further increases risk (⊕ Bangladesh or the Maldives).
		b. Storm surge events can lead to severe coastal flooding with dramatic short-term impacts (depressions, tropical cyclones).
		c. Climate change may increase coastal flood risk (frequency and magnitude of storms, sea level rise) but the pace and magnitude of this threat is uncertain. *(F: this risk is creating an uncertain future and needs mitigation and adaptation)*

Enquiry question 4: How can coastlines be managed to meet the needs of all players?		
Key idea		**Detailed content**
2B.10 Increasing risks of coastal recession and coastal flooding have serious consequences for affected communities.	a.	Economic losses (housing, businesses, agricultural land, infrastructure) and social losses (relocation, loss of livelihood, amenity value) from coastal recession can be significant, especially in areas of dense coastal developments.
	b.	Coastal flooding and storm surge events can have serious economic and social consequences for coastal communities in both developing and developed countries.
	c.	Climate change may create environmental refugees in coastal areas.
2B.11 There are different approaches to managing the risks associated with coastal recession and flooding.	a.	Hard engineering approaches (groynes, sea walls, rip rap, revetments, offshore breakwaters) are economically costly and directly alter physical processes and systems. (8) *(A: actions by different players may have unforeseen consequences)*
	b.	Soft engineering approaches (beach nourishment, cliff re-grading and drainage, dune stabilisation) attempt to work with physical systems and processes to protect coasts and manage risks caused by changes in sea-level. (9)
	c.	Sustainable management is designed to cope with future threats (increased storm events, rising sea levels) but its implementation can lead to local conflicts in many countries. *(F: mitigation and adaptation will both be needed for future stability)*
2B.12 Coastlines are now increasingly managed by holistic integrated coastal zone management (ICZM).	a.	Coastal management increasingly uses the concept of littoral cells to manage extended areas of coastline. Throughout the world, countries are developing schemes that are sustainable and use holistic ICZM strategies.
	b.	Shoreline Management Policy decisions (No Active Intervention, Strategic Realignment, Hold The Line, Advance The Line) are based on complex judgements (engineering feasibility, environmental sensitivity, land value, political and social reasons); Cost Benefit Analysis (CBA) and Environmental Impact Assessment (EIA) are used as part of the decision-making process.
	c.	Policy decisions can lead to conflicts between different players (homeowners, local authorities, environmental pressure groups) with perceived winners and losers in countries at different levels of development (developed and developing or emerging countries) (🌐 Happisburgh **and** Chittagong). *(A: attitudes of differing players may vary)*

Guidance for integrating geographical skills for Topic 2 Option 2B

The emphasis of students' study must be on the use of quantitative geographical skills, including developing observation skills and measurement and geo-spatial mapping skills, together with data manipulation and statistical skills applied for field measurement. Qualitative approaches may be used if appropriate. The following guidance on integrating skills gives suggestions of opportunities to meet these requirements. These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study. The full range of skills is outlined in the geographical skills appendix (*Appendix 1*).

(1) GIS mapping of the variety of coastal landscapes, both for and beyond the UK.

(2) Satellite interpretation of a variety of coastlines to attempt to classify them.

(3) Field sketches of contrasting coastal landscapes.

(4) Using measures of central tendency to classify waves into destructive and constructive wave types.

(5) Using student t-test to investigate changes in pebble size and shape along a drift aligned beach and also across the littoral zone to above the storm beach.

(6) Map and aerial interpretation of distinctive landforms indicating past of sea-level change.

(7) Use of GIS, aerial photos and maps to calculate recession rates for a variety of temporal rates (annual changes and longer-term changes).

(8) Interrogation of GIS of management cells to ascertain land use values and develop cost/benefit analysis to inform the choice of coastal management strategy.

(9) Photo interpretation of a range of approaches to management to assess environmental impact.

(10) Sand dune or salt marsh surveys to assess the impact of succession using an index of diversity, X^2 (chi-square to compare features of the various zones).

Assessment information

- First assessment: May/June 2017.
- The assessment is 1 hour and 45 minutes.
- The assessment consists of three sections.
- The assessment is out of 90 marks.
- Students answer Section A and **either** Section B **or** Section C.
- The paper may include multiple-choice questions, short open, open response, calculations and resource-linked questions. The examination includes 9-mark and 12-mark extended writing questions.
- In optional Sections B or C, one question will assess fieldwork in relation to Glaciated Landscapes and Change **or** Coastal Landscapes and Change. Each section ends with one 16-mark synoptic question that assesses students' understanding of one of three synoptic themes and of one of the core geographical concepts.
- Calculators may be used in the examination.

Synoptic assessment

Synoptic assessment requires students to work across different parts of a qualification and to show their accumulated knowledge and understanding of a topic or subject area.

Synoptic assessment enables students to show their ability to combine their skills, knowledge and understanding with breadth and depth of the subject.

In this qualification, the 16-mark synoptic questions in Paper 1 link Topic 1 to Topic 2A or 2B depending on question choice. In Paper 2, Topic 3 is linked to Topic 4A or 4B depending on question choice.

Sample assessment materials

A sample paper and mark scheme for this component can be found in the *Pearson Edexcel Level 3 Advanced Subsidiary GCE in Geography* Sample Assessment Materials (SAMs) document.

Area of study 2: Dynamic Places

Topic 3: Globalisation

Overview

Globalisation and global interdependence continue to accelerate, resulting in changing opportunities for businesses and people. Inequalities are caused within and between countries as shifts in patterns of wealth occur. Cultural impacts on the identity of communities increase as flows of ideas, people and goods take place. Recognising that both tensions in communities and pressures on environments are likely, will help players implement sustainable solutions.

Content

Enquiry question 1: What are the causes of globalisation and why has it accelerated in recent decades?		
Key idea	**Detailed content**	
3.1 Globalisation is a long-standing process which has accelerated because of rapid developments in transport, communications and businesses.	a.	Globalisation involves widening and deepening global connections, interdependence and flows (commodities, capital, information, migrants and tourists). (1)
	b.	Developments in transport and trade in the 19th century (railways, telegraph, steam-ships) accelerated in the 20th century (jet aircraft, containerisation), contributing to a 'shrinking world'.
	c.	The 21st century has been dominated by rapid development in ICT and global communication (mobile phones, internet, social networking, electronic banking, fibre optics), lowering communication costs and contributing to time-space compression.
3.2 Political and economic decision making are important factors in the acceleration of globalisation.	a.	International political and economic organisations *(P: role of World Trade Organization (WTO), International Monetary Fund (IMF), World Bank)* have contributed to globalisation through the promotion of free trade policies and foreign direct investment (FDI).
	b.	National governments are key players in terms of promoting free trade blocs *(P: role of European Union (EU), The Association of Southeast Asian Nations (ASEAN))* and through polices (free-market liberalisation, privatisation, encouraging business start-ups). *(P: role of governments in economic liberalisation)*
	c.	Special economic zones, government subsidies and attitudes to FDI (⊕ China's 1978 Open Door Policy) have contributed to the spread of globalisation into new global regions *(P: role of governments in attracting foreign direct investment (FDI))*

Enquiry question 1: What are the causes of globalisation and why has it accelerated in recent decades?		
Key idea	**Detailed content**	
3.3 Globalisation has affected some places and organisations more than others.	a.	Degree of globalisation varies by country and can be measured using indicators and indices (AT Kearney index, KOF index). (2)
	b.	TNCs are important in globalisation *(P: role of TNCs)* both contributing to its spread (global production networks, glocalisation and the development of new markets) and taking advantage of economic liberalisation (outsourcing and offshoring).
	c.	There are physical, political, economic and environmental reasons why some locations remain largely 'switched off' from globalisation (🌍 North Korea or Sahel countries). (3)

Key idea		Detailed content	
3.4	The global shift has created winners and losers for people and the physical environment.	a.	The movement of the global economic centre of gravity to Asia via the global shift of manufacturing (🌐 China) and outsourcing of services (🌐 India) can lead to changes in the built environment that can bring benefits (infrastructure investment, waged work, poverty reduction, education and training) but also costs (loss of productive land, unplanned settlements, environmental and resource pressure).
		b.	Some communities in developing countries have experienced major environmental problems (including air and water pollution, land degradation, over-exploitation of resources, and loss of biodiversity), which impact on people's health and wellbeing.
		c.	Some deindustrialised regions in developed countries face social and environmental problems as a result of economic restructuring (dereliction, contamination, depopulation, crime and high unemployment). (4)
3.5	The scale and pace of economic migration has increased as the world has become more interconnected, creating consequences for people and the physical environment.	a.	Rural-urban migration (push and pull factors), and/or natural increase, is responsible for the growth of megacities (🌐 Mumbai or Karachi); rapid urban growth creates social and environmental challenges. (5)
		b.	International migration has increased in global hub cities and regions, deepening interdependence between regions (elite migration (🌐 Russian oligarchs to London) and mass low-wage economic migration (🌐 India to UAE or the Philippines to Saudi Arabia)).
		c.	Migration has economic, social, political and environmental costs and benefits for both host and source locations.
3.6	The emergence of a global culture, based on western ideas, consumption and attitudes towards the physical environment, is one outcome of globalisation.	a.	Cultural diffusion occurs as a result of globalisation; TNCs, global media corporations *(P: role of TNCs)*, tourism and migration create and spread an increasingly 'westernised' global culture which impacts on both the environment and people (🌐 Changing diets in Asia). The spread of a global culture has also led to new awareness of opportunities for disadvantaged groups (🌐 Athletes at the Rio 2016 Summer Paralympics) particularly in emerging and developing countries. *(P: opportunities for these groups)* (6)
		b.	In some locations, cultural erosion (loss of language, traditional food, music, clothes, social relations (🌐 loss of tribal lifestyles in Papua New Guinea) has resulted in changes to the built and natural environment (de-valuing local and larger-scale ecosystems).
		c.	Concern about cultural impacts, economic and environmental exploitation has led to opposition to globalisation from some groups. *(A: attitudes of pro- and anti- globalisation groups, environmental movement)*

Enquiry question 3: What are the consequences of globalisation for global development and the physical environment and how should different players respond to its challenges?

Key idea		Detailed content	
3.7	Globalisation has led to dramatic increases in development for some countries, but also widening development gap extremities and disparities in environmental quality.	a.	Economic measures (both single and composite indices) of development (income per capita, economic sector balance) contrast with those focused on social development (Human Development Index (HDI), Gender Inequality Index (GII)) and environmental quality (air pollution indices). (7)
		b.	Trends in widening income inequality, globally and nationally (measured using the Gini Coefficient), suggest globalisation has created winners and losers for people and physical environments between and within developed, emerging and developing economies. (8)
		c.	Contrasting trends in economic development and environmental management between global regions since 1970 indicate differential progress that can be related to the outcomes from globalisation.
3.8	Social, political and environmental tensions have resulted from the rapidity of global change caused by globalisation.	a.	Open borders, deregulation and encouragement of foreign direct investment has created culturally mixed societies and thriving migrant diasporas in some locations, but tensions have resulted elsewhere (⊕ Rise of extremism in Europe and trans-boundary water conflicts in south-east Asia).
		b.	Attempts have been made in some locations to control the spread of globalisation by censorship (⊕ China or North Korea), limiting immigration (⊕ UK or Japan) and trade protectionism. *(P: role of government)* *(A: attitudes of pro- and anti-immigration groups)*
		c.	Some groups seek to retain their cultural identity within countries and seek to retain control of culture and physical resources (⊕ First Nations in Canada), whereas others embrace its economic advantages.
3.9	Ethical and environmental concerns about unsustainability have led to increased localism and awareness of the impacts of a consumer society.	a.	Local groups and NGOs promote local sourcing (⊕ Transition towns) as one response to globalisation by increasing sustainability *(A: actions of local pressure groups)*; this has economic, social and environmental costs and benefits.
		b.	Fair trade and ethical consumption schemes may reduce the environmental degradation, the inequalities of global trade and improve working conditions for some people. *(A: actions of NGOs and pressure groups)*
		c.	Recycling has a role in managing resource consumption and ecological footprints, but its use varies by product and place (⊕ local authorities in the UK or local NGOs such as Keep Britain Tidy). *(F: environmental consequences of different patterns of resource consumption)*

Guidance for integrating geographical skills for Topic 3

The following skills provide suggested opportunities for integrating the full range of skills outlined in the geographical skills appendix (*Appendix 1*). These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study.

(1)   Use of proportional flow lines showing networks of flows.

(2)   Ranking and scaling data to create indices.

(3)   Analysis of human and physical features on maps to understand lack of connectedness.

(4)   Use of population, deprivation and land-use datasets to quantify the impacts of deindustrialisation.

(5)   Use of proportional flow arrows to show global movement of migrants from source to host areas.

(6)   Analysis of global TNC and brand value datasets to quantify the influence of western brands.

(7)   Critical use of World Bank and United Nations (UN) data sets to analyse trends in human and economic development, including the use of line graphs, bar charts and trend lines.

(8)   Plotting Lorenz curves and calculating the Gini Coefficient.

Topic 4: Shaping Places

Option 4A: Regenerating Places

Overview

Local places vary economically and socially with change driven by local, national and global processes. These processes include movements of people, capital, information and resources, making some places economically dynamic while other places appear to be marginalised. This creates and exacerbates considerable economic and social inequalities both between and within local areas. Urban and rural regeneration programmes involving a range of players involve both place making (regeneration) and place marketing (rebranding). Regeneration programmes impact variably on people both in terms of their lived experience of change and their perception and attachment to places. The relative success of regeneration and rebranding for individuals and groups depends on the extent to which lived experience, perceptions, and attachments to places are changed.

Students should begin by studying the place in which they live or study in order to look at economic change and social inequalities. They will then put this local place in context in order to understand how regional, national, international and global influences have led to changes there. They should then study one further contrasting place through which they will develop their wider knowledge and understanding about how places change and are shaped. A local place may be a locality, a neighbourhood or a small community, either urban or rural.

Content

Enquiry question 1: How and why do places vary?
An in-depth study of the local place in which you live or study and one contrasting place

Key idea	Detailed content	
4A.1 Economies can be classified in different ways and vary from place to place.	a.	Economic activity can be classified by sector (primary, secondary, tertiary and quaternary) and also by type of employment (part-time/full-time, temporary/permanent, employed/self-employed.
	b.	There are differences in economic activity (employment data and output data) and this is reflected through variation in social factors (health, life expectancy and levels of education). (1)
	c.	The inequalities in pay levels across economic sectors and in different types of employment are reflected in quality of life indices.

Enquiry question 1: How and why do places vary?	
An in-depth study of the local place in which you live or study and one contrasting place	
Key idea	**Detailed content**
4A.2 Places have changed their function and characteristics over time.	a. Over time, places have changed their functions (administrative, commercial, retail and industrial) and demographic characteristics (gentrification, age structure and ethnic composition).
	b. Reason for changes in a place might be explained by physical factors, accessibility and connectedness, historical development and the role of local and national planning. (2)
	c. Change can be measured using employment trends, demographic changes, land use changes and levels of deprivation (income deprivation, employment deprivation, health deprivation, crime, quality of the living environment, abandoned and derelict land). (3)
4A.3 Past and present connections have shaped the economic and social characteristics of your chosen places.	a. Regional and national influences have shaped the characteristics of your chosen places. These places can be represented in a variety of different forms, giving contrasting images to that presented more formally and statistically. How the lives of students and those of others are affected by this continuity and change, both real and imagined.
	b. International and global influences that have shaped your chosen places. These places can be represented in a variety of different forms, giving contrasting images to that presented more formally and statistically. How the lives of students and those of others are affected by this continuity and change, both real and imagined. *(P: increasing roles of TNCs and IGOs)*
	c. Consideration of the way in which economic and social changes in your chosen places have influenced people's identity. (4) *(A: Attitudes on changes range from cultural erosion to enrichment)*

Enquiry question 2: Why might regeneration be needed?		
Key idea	**Detailed content**	
4A.4 Economic and social inequalities changes people's perceptions of an area.	a.	Successful regions (⊕ San Francisco Bay area) have high rates of employment, inward migration (internal and international) and low levels of multiple deprivation but also high property prices and skill shortages in both urban and rural areas.
	b.	In some regions (⊕ The Rust Belt, USA) economic restructuring has triggered a spiral of decline, which includes increasing levels of social deprivation (education, health, crime, access to services and living environment) in both deindustrialised urban areas and rural settlements once dominated by primary economic activities.
	c.	There are priorities for regeneration due to significant variations in both economic and social inequalities (gated communities, 'sink estates', commuter villages, declining rural settlements).
4A.5 There are significant variations in the lived experience of place and engagement with them.	a.	There are wide variations in levels of engagement in local communities (local and national election turnout, development and support for local community groups). *(A: local communities vary in attitudes)*
	b.	Lived experience of, and attachment to, places varies according to age, ethnicity, gender, length of residence (new migrants, students) and levels of deprivation; these in turn impact on levels of engagement. *(A: Attachment to places influence attitudes)*
	c.	Conflicts can occur among contrasting groups in communities that have different views about the priorities and strategies for regeneration, these have complex causes (lack of political engagement and representation, ethnic tensions, inequality and lack of economic opportunity). *(P: Players vary attitudes(A) and may have contrasting approaches (F)*
4A.6 There is a range of ways to evaluate the need for regeneration.	a.	The use of statistical evidence to determine the need for regeneration in your chosen local place. (⊕) (5)
	b.	Different media can provide contrasting evidence, questioning the need for regeneration in your chosen local place. (⊕) (6)
	c.	How different representations of your chosen local place could influence the perceived need for regeneration. (⊕) (7)

Enquiry question 3: How is regeneration managed?	
Key idea	**Detailed content**
4A.7 UK government policy decisions play a key role in regeneration.	a. Infrastructure investment (high speed rail, airport development) in order to maintain growth and improve accessibility to regenerate regions. *(P: national government facilitate regeneration often in partnerships with charities and developers)*
	b. Rate and type of development (planning laws, house building targets, housing affordability, permission for 'fracking') affecting economic regeneration of both rural and urban regions. *(A: Government actions may prioritise national over local needs and opinions.)*
	c. UK government decisions about international migration and the deregulation of capital markets ((⊕) enabling foreign investment in prime London real estate) have significant impacts on the potential for growth and both direct and indirect investment. *(P: Government may create open or closed doors policies)*
4A.8 Local government policies aim to represent areas as being attractive for inward investment.	a. Local governments compete to create sympathetic business environments with local plans designating areas for development for a range of domestic and foreign investors (⊕ Science and technology parks). *(A: the actions of local authorities will affect their success)*
	b. Local interest groups (Chambers of Commerce, local preservation societies, trade unions) play a key role in decision-making about regeneration; there are often tensions between groups that wish to preserve environments and those that seek change. (⊕ London Olympics 2012) *(A: differing attitudes may cause conflicts)*
	c. Urban and rural regeneration strategies include retail-led plans, tourism, leisure and sport (⊕ London Olympics 2012), public/private rural diversification (⊕ Powys Regeneration Partnership).
4A.9 Rebranding attempts to represent areas as being more attractive by changing public perception of them.	a. Rebranding involves re-imaging places using a variety of media to improve the image of both urban and rural locations and make them more attractive for potential investors.
	b. For UK deindustrialised cities, rebranding can stress the attraction of places, creating specific place identity building on their industrial heritage; this can attract national and international tourists and visitors (⊕ Glasgow 'Scotland with Style'). (8)
	c. There are a range of rural rebranding strategies in the post-production countryside based on heritage and literary associations, farm diversification and specialised products, outdoor pursuits and adventure in both accessible and remote areas; these strategies are intended to make these places more attractive to national and international tourists and visitors (⊕ 'Brontë country, Kielder Forest).

Enquiry question 4: How successful is regeneration?		
Key idea	**Detailed content**	
4A.10 Assessing the success of regeneration uses a range of measures: economic, demographic, social and environmental.	a.	The success of economic regeneration can be assessed using measures of income, poverty and employment (both relative and absolute changes) both within areas and by comparison to other more successful areas.
	b.	Social progress can be measured by reductions in inequalities both between areas and within them; social progress can also be measured by improvements in social measures of deprivation and in demographic changes (improvements in life expectancy and reductions in health deprivation).
	c.	Regeneration is successful if it leads to an improvement in the living environment (levels of pollution reduced, reduction in abandoned and derelict land). (9)
4A.11 Different urban stakeholders have different criteria for judging the success of urban regeneration.	a.	A study of the strategies used in the regeneration of an urban place (🌐 Salford Quays) and the contested nature of these decisions within local communities. (10) *(A: Attitudes will include NIMBYism)*
	b.	The changes that have taken place as a consequence of national and local strategies can be judged using a range of economic, social, demographic and environmental variables in an urban area. *(F: future success depends on past decisions)*
	c.	Different stakeholders (local and national governments, local businesses and residents) will assess success using contrasting criteria; their views will depend on the meaning and lived experiences of an urban place and the impact of change on both the reality and the image of that place.
4A.12 Different rural stakeholders have different criteria for judging the success of rural regeneration.	a.	A study of the strategies used in the restructuring of a rural place (🌐 North Antrim coast) and the contested nature of these decisions within local communities.
	b.	The changes that have taken place as a consequence of national and local strategies can be judged using a range of economic, social, demographic and environmental variables in a rural area. *(F: future success depends on past decisions)*
	c.	Different stakeholders (local and national governments, local businesses and residents) will assess success using contrasting criteria; their views will depend on the meaning and lived experiences of a rural place and the impact of change on both the reality and the image of that place.

Guidance for integrating geographical skills for Topic 4 Option 4A

Quantitative and qualitative geographical skills must be developed in this topic. Particular weight must be given to qualitative approaches involved in representing place, and to critically analysing the impacts of different media on place meanings and perceptions. The use of geospatial data must also be used to present place characteristics. The following guidance on integrating geographical skills includes suggestions of opportunities to meet these requirements.

These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study. *Appendix 1* outlines the full range of geographical skills.

(1) Use of GIS to represent data about place characteristics.

(2) Interpretation of oral accounts of the values and lived experiences of places from different interest groups and ethnic communities.

(3) Use of the Index of Multiple Deprivation (IMD) database to understand variations in levels and types of deprivation.

(4) Investigation of social media to understand how people relate to the places where they live.

(5) Testing of the strength of relationships through the use of scatter graphs and Spearman's rank correlation.

(6) Use of different newspaper sources to understand conflicting views about plans for regeneration.

(7) Evaluation of different sources (music, photography, film, art, literature) and appreciation of why they create different representations and image of a local place.

(8) Exploration of discursive/creative media sources to find out how place identity has been used as part of rebranding.

(9) The interpretation of photographic and map evidence showing 'before and after' cross-sections of regenerated urban and rural places.

(10) Interrogation of blog entries and other social media to understand different views of the success of regeneration projects.

Topic 4: Shaping Places

Option 4B: Diverse Places

Overview

Local places vary both demographically and culturally with change driven by local, national and global processes. These processes include movements of people, capital, information and resources, making some places more demographically and culturally heterogeneous while other places appear to be less dynamic. This creates and exacerbates considerable social inequalities both between and within local areas.

Variations in past and present connections with places lead to very different lived experiences of places at a local level. This is because demographic and cultural changes impact variably on people in terms of the lived experience of change and their perception of and attachment to places. The relative success of the management of demographic and cultural changes for individuals and groups depends on that lived experience of change and how perceptions of, and attachments to, the place are changed.

Students should begin by studying the place in which they live or study in order to look at demographic and social changes. They will then put this local place in context in order to understand how regional, national, international and global influences have led to changes in this place. They should then study one further contrasting place, which will develop wider knowledge and understanding about how places change and are shaped. A local place may be a locality, a neighbourhood or a small community, either urban or rural.

Content

Enquiry question 1: How do population structures vary?
Study enquiry question 1 in the context of an in-depth study of the local place in which you live or study and one contrasting place.

Key idea		Detailed content	
4B.1 Population structure varies from place to place and over time.	a.	The population of the UK has grown unevenly in the last 50 years, with some regions growing rapidly (⊕ London and the south-east) whilst others have grown more slowly (⊕ the north-east of England).	
	b.	Population structure and density varies according to placement in the rural-urban continuum and, therefore accessibility, physical factors, historical development and the role of planning.	
	c.	Population structure and dynamics are a result of differences in fertility and mortality rates as well as international and internal migration.	

An in-depth study of the local place in which you live or study and one contrasting place

Key idea		Detailed content	
4B.2	Population characteristics vary from place to place and over time.	a.	There can be considerable variation in population characteristics (gender and ethnicity), both in and between settlements.
		b.	Different levels of cultural diversity in places can be explained by social clustering, accessibility to key cities, physical factors and government planning policy. ***(A: actions by governments may foster or supress diversity)***
		c.	Fertility and mortality rates, as well as international and internal migration, are changing the cultural characteristics of places.
4B.3	How past and present connections have shaped the demographic and cultural characteristics of your chosen places.	a.	Regional and national influences that have shaped the characteristics of your chosen places. These places can be represented in a variety of different forms, giving contrasting images to that presented more formally and statistically. How lives of students and those of others are affected by this continuity and change, both real and imagined.
		b.	International and global influences that have shaped your chosen places. These places can be represented in a variety of different forms, giving contrasting images to that presented more formally and statistically. How the lives of students and those of others are affected by this continuity and change, both real and imagined. ***(P: increasing roles of especially TNCs and IGOs)***
		c.	Consideration of the way in which the demographic and cultural changes in your chosen local place have impacted on people's identity. (1)

Enquiry question 2: How do different people view diverse living spaces?		
Key idea	**Detailed content**	
4B.4 Urban places are seen differently by different groups because of their lived experience of places and their perception of those places.	a.	During industrialisation, urban places were perceived by some as dangerous and threatening (⊕ Victorian London); currently they could be seen as attractive because of their range of economic opportunities and the variety of social and leisure activities that attract young people and migrants.
	b.	Some urban locations are perceived as undesirable or even threatening by residents and/or outsiders due to high crime rates, low environmental quality, population characteristics and reputation based on quantitative data but also due to lived experience and media representation. (2)
	c.	Suburban and inner-city areas are perceived differently in terms of their desirability as places to live and work by contrasting demographic groups (by age, ethnicity, life-cycle stage). (3). *(A: attitudes may vary)*
4B.5 Rural places are seen differently by different groups because of their lived experience of places and their perception of those places.	a.	Rural places are often perceived as idyllic because of their tranquillity, natural landscapes and historical and cultural associations (⊕ Hardy's 'Wessex'). (4). *(A: Urban and rural residents may differ in their attitude to places.)*
	b.	Some rural locations are perceived as undesirable by residents and/or outsiders because of remoteness, limited social opportunities, limited range of services, high transport costs, population characteristics and reputation based on quantitative data but also because of lived experience and media representation.
	c.	Rural areas are viewed in different ways: from very remote areas to retirement villages and commuter villages. *(A: attitudes may vary)*
4B.6 There is a range of ways to evaluate how people view their living spaces.	a.	The use of statistical evidence to determine whether people have a positive or negative image of your chosen local place. (⊕) (5)
	b.	Different media can provide contrasting evidence about the image different people have of your chosen local place. (⊕).
	c.	How different representations of your chosen local place could be used to influence the perception of cultural and demographic issues and conflict. (⊕) (6)

Enquiry question 3: Why are there demographic and cultural tensions in diverse places?		
Key idea	**Detailed content**	
4B.7 Culture and society is now more diverse in the UK.	a.	Significant internal movement of people within the UK has created uneven demographic and cultural patterns. (⊕ London and the south-east)
	b.	Culture and society in the UK has changed because of significant international migration flows from former colonies (⊕ Indian sub-continent and the West Indies) and from the European Union. *(P: the main gatekeeper player affecting flows is the Government)*
	c.	Some international migrants choose to live in rural areas for specific reasons, creating social challenges and opportunities. (⊕ East Europeans in Lincolnshire)
4B.8 Levels of segregation reflect cultural, economic and social variation and change over time.	a.	International migrants tend to live in distinctive places (⊕ Russian oligarch families in London) with ethnic segregation closely related to economic indicators (income and employment) and social indicators (health, crime and education). (7)
	b.	Diverse living spaces in urban areas have social characteristics that reflect ethnicity and culture in terms of distinctive retail outlets, places of worship and leisure. (⊕ Southall) (8)
	c.	Experiences and perceptions of living spaces change over generations as communities have evolved economically and culturally. *(A: intergenerational attitudes and norms may change from global cultural trends)*
4B.9 Changes to diverse places can lead to tension and conflict.	a.	Different community groups, local and national governments and TNCs may make changes to land uses that create challenges and opportunities for local people and their lived experience of place. *(A: different actions may have different impacts)*
	b.	There are frequent tensions over the diversity of living spaces, especially between long-term residents who seek continuity and recent in-migrants who may seek change. (9) (⊕ Luton)
	c.	Changes to the built environment will bring benefits to some groups but can provoke hostility from other groups that perceive migrants as a threat to their culture. Migrants may experience a sense of social exclusion. (⊕ Glasgow) *(P: planners and developers may make controversial decisions)*

Enquiry question 4: How successfully are cultural and demographic issues managed?		
Key idea	**Detailed content**	
4B.10 The management of cultural and demographic issues can be measured using a range of techniques.	a.	Management can be assessed using measures of income and employment (both relative and absolute changes) both in areas and by comparison to other areas.
	b.	Social progress can be measured by reductions in inequalities both between areas and within them as well as improvements in social measures of deprivation and demographic changes (improvements in life expectancy). (8)
	c.	Assimilation of different cultures can be measured by levels of political engagement through voter turnout, the development of local community groups and reductions in 'hate' crime and racism.
4B.11 Different urban stakeholders have different criteria for assessing the success of managing change in diverse urban communities.	a.	A study of the contrasting ways in which different demographic and ethnic groups view an urban living space and the impact of national and local strategies in resolving issues (🌍 *Aik Saath* in Slough).
	b.	The changes that have taken place can be judged using a range of economic, social, demographic and environmental variables in the changing urban area. *(F: changes may create differing legacies)*
	c.	Different stakeholders (local and national governments, local businesses and residents) will assess success using contrasting criteria depending on the meaning of the place and the impact of change on both the reality and their image of that place. (10). *(A: 'success' depends on the attitudes of different players)*
4B.12 Different rural stakeholders have different criteria for assessing the success of managing change in diverse rural communities.	a.	A study of the contrasting ways in which different demographic and ethnic groups view a rural living space and the impact of national and local strategies on a rural area (🌍 Lake District Rural Revival Partnerships).
	b.	The changes that have taken place can be judged using a range of economic, social, demographic and environmental variables in the changing rural area. *(F: changes may create differing legacies)*
	c.	Different stakeholders (local and national governments, local businesses and residents) will assess success using contrasting criteria, depending on the meaning of the place and the impact of change on both the reality and their image of that place. *(A: 'success' depends on the attitudes of different players)*

Guidance for integrating geographical skills for Topic 4 Option 4B

Quantitative and qualitative geographical skills must be developed in this topic. Particular weight must be given to qualitative approaches involved in representing place and to critically analysing the impacts of different media on place meanings and perceptions. The use of geospatial data must also be used to present place characteristics. The following guidance on integrating geographical skills gives suggestions for opportunities to meet these requirements.

These skills are **not** exclusive to the topic areas under which they appear; students will need to be able to apply these skills across any suitable topic area throughout their course of study. *Appendix 1* outlines the full range of geographical skills.

(1) Investigation of social media to understand how people relate to the places where they live.

(2) Use of GIS to represent and analyse crime data and to show variations in levels of crime across communities.

(3) Interviews with local residents to interpret information representing cultural and demographic issues in a local place.

(4) Interpretation of qualitative information (advertising copy, tourist agency material, local art exhibitions) to show both its significance and what it means about a chosen local place.

(5) Testing of the strength of relationships through the use of scatter graphs and Spearman's rank correlation.

(6) Evaluation of different sources (music, photography, film, art, literature) and appreciation of why they create different representations and image of a local place.

(7) Use of indexes to measure ethnic and cultural diversity.

(8) Interpretation of photographic and map evidence showing 'before and after' cross-sections.

(9) Interpretation of oral accounts of the values and lived experiences of places from different interest groups and ethnic communities.

(10) Analysis of contrasting newspaper reports about a change, including opinions about that change.

Assessment information

- First assessment: May/June 2017.
- The assessment is 1 hour and 45 minutes.
- The assessment consists of three sections.
- The assessment is out of 90 marks.
- Students answer Section A and **either** Section B **or** Section C.
- The paper may include multiple-choice questions, short open, open response, calculations and resource-linked questions. The examination includes 12-mark and 16-mark extended writing questions.
- In optional Sections B or C one question will assess fieldwork in relation to Regenerating Places or Diverse Places. Each section ends with one 16-mark synoptic question that assesses students' understanding of one of three synoptic themes and of one of the core geographical concepts.
- Calculators may be used in the examination.

Synoptic assessment

Synoptic assessment requires students to work across different parts of a qualification and to show their accumulated knowledge and understanding of a topic or subject area.

Synoptic assessment enables students to show their ability to combine their skills, knowledge and understanding with breadth and depth of the subject.

In this qualification, the 16-mark synoptic questions in Paper 1 link Topic 1 to Topic 2A or 2B depending on question choice. In Paper 2, Topic 3 is linked to Topic 4A or 4B depending on question choice.

Sample assessment materials

Sample papers and mark schemes can be found in the *Pearson Edexcel Level 3 Advanced Subsidiary GCE in Geography* Sample Assessment Materials (SAMs) document.

Assessment Objectives

Students must:			% in GCE AS Level
AO1	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scales		40
AO2	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues		35.6
AO3	Use a variety of relevant quantitative, qualitative and fieldwork skills to: • investigate geographical questions and issues • interpret, analyse and evaluate data and evidence • construct arguments and draw conclusions		24.4
		Total	**100%**

Breakdown of Assessment Objectives

Paper	Assessment Objectives			Total for all Assessment Objectives
	AO1 %	**AO2 %**	**AO3 %**	
Paper 1	20	17.8	12.2	50
Paper 2	20	17.8	12.2	50
Total for GCE AS Level	**40%**	**35.6%**	**24.4%**	**100%**

3 Administration and general information

Entries

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

Discount code and performance tables

Centres should be aware that students who enter for more than one GCE qualification with the same discount code will have only one of the grades they achieve counted for the purpose of the school and college performance tables. This will be the grade for the larger qualification (i.e. the A Level grade rather than the AS grade). If the qualifications are the same size, then the better grade will be counted (please see *Appendix 9: Codes*).

Please note that there are two codes for AS GCE qualifications; one for Key Stage 4 (KS4) performance tables and one for 16–19 performance tables. If a KS4 student achieves both a GCSE and an AS with the same discount code, the AS result will be counted over the GCSE result.

Students should be advised that if they take two GCE qualifications with the same discount code, colleges, universities and employers they wish to progress to are likely to take the view that this achievement is equivalent to only one GCE. The same view may be taken if students take two GCE qualifications that have different discount codes but have significant overlap of content. Students or their advisers who have any doubts about their subject combinations should check with the institution they wish to progress to 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 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 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 person 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 person 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, which will include:

- 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 their 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.

For up-to-date advice on teacher involvement and administration of non-examination assessments, please refer to the Joint Council for Qualifications (JCQ) document *Instructions for conducting non-examination assessments (new GCE and GCSE specifications)* available on 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 controlled assessments discovered before the candidate has signed the declaration of authentication form does not need to be reported to Pearson.

Candidate malpractice found in controlled assessments after the declaration of authenticity has been signed, and in examinations **must** be reported to Pearson on a *JCQ Form M1* (available at www.jcq.org.uk/exams-office/malpractice). The completed 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 candidate 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 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 *General and Vocational Qualifications Suspected Malpractice in Examinations and Assessments Policies and Procedures,* available at www.jcq.org.uk/exams-office/malpractice.

Awarding and reporting

This qualification will be graded, awarded and certificated to comply with the requirements of Ofqual's General Conditions of Recognition.

This A Level qualification will be graded and certificated on a five-grade scale from A to E using the total subject mark. Individual papers/ non-examination assessment component are not graded.

The first certification opportunity for this qualification will be 2017.

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 follows the JCQ policy concerning recruitment to our qualifications in 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.

Students who would benefit most from studying this qualification are likely to have a Level 2 qualification such as a GCSE in Geography.

Progression

Students can progress from this qualification to:

- a range of different, relevant academic or vocational higher education qualifications
- employment in a relevant sector
- further training.

Appendices

Appendix 1: Geographical skills

Competence in using geographical skills should be developed during study of compulsory and optional topics, not as a separate theme or topic. While the relative balance of quantitative and qualitative methods and skills will differ between topics, students must be introduced to a roughly equal balance of quantitative and qualitative methods and skills across the specification as a whole. This specification requires candidates to use their prior knowledge and understanding of the geographical, mathematical and statistical skills required at GCSE. In addition, all of these skills listed below are compulsory and may be assessed across any of the areas of study.

This specification requires students to:

- understand the nature and use of different types of geographical information, including qualitative and quantitative, primary and secondary, images, factual text and discursive/creative material, digital data, numerical and spatial data and innovative forms of data, including crowd-sourced and 'big data' and including dot maps, kite diagrams, linear and logarithmic scales, dispersion diagrams, aerial, oblique, ground, satellite images, GIS
- collect, analyse and interpret such information, and demonstrate the ability to understand and apply suitable analytical approaches for the different information types **including, qualitative approaches** such as coding and sampling **and quantitative approaches** such as measures of dispersion, measures of correlation and association from the following statistical tests: t-tests, Spearman's rank, Chi-squared, Gini Co-efficient, Lorenz curve
- undertake informed and critical questioning of data sources, analytical methodologies, data reporting and presentation, including the ability to identify sources of error in data and to identify the misuse of data
- communicate and evaluate findings, draw well-evidenced conclusions informed by wider theory, and construct extended written argument about geographical matters.

This specification requires students to demonstrate all of the following skills.

1. **Qualitative data**
   a) use and understand a mixture of methodological approaches, including using interviews
   b) interpret and evaluate a range of source material including textual and visual sources, **such as** oral accounts, newspapers, creative media, social media, aerial, oblique, ground photographs, sketches and drawings
   c) understand the opportunities and limitations of qualitative techniques such as coding and sampling, and appreciate how they actively create particular geographical representations
   d) understand the ethical and socio-political implications of collecting, studying and representing geographical data about human communities.

2. **Quantitative data**
   a) understand what makes data geographical and the geospatial technologies (e.g. GIS) that are used to collect, analyse and present geographical data
   b) demonstrate an ability to collect and to use digital, geo-located data, and to understand a range of approaches to the use and analysis of such data;
   c) use, interpret and analyse geographical information including dot maps, kite diagrams, linear and logarithmic scales, dispersion diagrams, satellite images, GIS
   d) understand the purposes and difference between the following and be able to use them in appropriate contexts:
      i. descriptive statistics of central tendency and dispersion, including Gini Co-efficient and Lorenz curve

ii.   descriptive measures of difference and association from the following statistical tests: t-tests, Spearman's rank, Chi-squared; inferential statistics and the foundations of relational statistics, including measures of correlation and lines of best fit on a scatter plot

iii.   measurement, measurement errors, and sampling.

Appendix 2: Fieldwork skills

AS students must undertake a minimum of **two** days of fieldwork. Centres will be required to provide evidence of this fieldwork in the form of a written fieldwork statement. Good practice should allow for students to follow the route to enquiry and for students to be fully engaged in the decision-making processes in relation to the fieldwork and research.

AS fieldwork must be carried out in relation to physical and human geography and will be externally assessed in AS Paper 1 and AS Paper 2. This specification requires AS students to carry out fieldwork in relation to:

Area of study 1 Topic 2: Glaciated Landscapes and Change **OR** Coastal Landscapes and Change

AND Area of study 2 Topic 4: Regenerating Places **OR** Diverse Places.

It is crucial that students have access to appropriate opportunities for meaningful research. Teachers must also ensure that the fieldwork activities and environments experienced by students allow them to develop and demonstrate the full range, variety and diversity of fieldwork skills required.

AS students investigating geographical questions and issues are required to evidence the skills listed here.

AS fieldwork skills requirements:	
Fieldwork skill number	**Fieldwork skill description** Students are required to:
1	identify appropriate field research questions, based on their knowledge and understanding of relevant aspects of physical and human geography
2	undertake informed and critical questioning of data sources, analytical methodologies, data reporting and presentation, including the ability to identify sources of error in data and to identify the misuse of data
3	understand how to observe and record phenomena in the field and be able to devise and justify practical approaches taken in the field, (including frequency/timing of observation, sampling, and data collection approaches)
4	demonstrate knowledge and understanding of how to select practical field methodologies (primary) appropriate to their investigation
5	demonstrate knowledge and understanding of implementing chosen methodologies to collect data/information of good quality that is relevant to the topic of investigation
6	demonstrate knowledge and understanding of the techniques appropriate for analysing field data and information and for representing results, including GIS, and show ability to select suitable quantitative or qualitative approaches and to apply them
7	apply existing knowledge and concepts to identify, order and understand field observations
8	show the ability to present and write a coherent analysis of fieldwork findings and results in order to justify conclusions as well as to interpret meaning from the investigation, including the significance of any measurement or other errors.

Appendix 3: Definitions

Terms used in this specification and their definition.

Term	Definition
Developed country	Country with very high human development (VHHD)
Developing country	Country with low human development (LHD), a poor country
Emerging country	Country with high and medium human development (HMHD), recently emerging country
Megacity	Urban area with a population of over 10 million

Human Development is 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 go to this website: hdr.undp.org

Appendix 4: 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
Assess	Use evidence to determine the relative significance of something. Give balanced consideration to all factors and identify which are the most important.
Calculate	Produce a numerical answer, showing relevant working.
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.
Complete	Create a graphical representation of geographical information by adding detail to a resource that has been provided
Define	State the meaning of a term.
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.
Draw/Plot	Create a graphical representation of geographical information.
Evaluate	Measure the value or success of something and ultimately provide a balanced and 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.
Explain	Provide a reasoned explanation of how or why something occurs. An explanation requires understanding to be demonstrated through the justification or exemplification of points that have been identified.
Identify/Give/Name/State	Recall or select one or more pieces of information.
Suggest	For an unfamiliar scenario, provide a reasoned explanation of how or why something may occur. A suggested explanation requires a justification/exemplification of a point that has been identified.

Appendix 5: Fieldwork statement

Pearson Edexcel Level 3 Advanced Subsidiary GCE in Geography	8GE0/04

Centre name:	Centre number:

All candidates must carry out **two** days of fieldwork outside of the classroom and school grounds.

Details of fieldwork	

Fieldwork day 1	Fieldwork day 2
Fieldwork date:_____	Fieldwork date:_____
Location:_____	Location:_____
Number of students:_____	Number of students:_____
Summary of geographical issues/questions investigated:	Summary of geographical issues/questions investigated:

Head teacher declaration

I declare that the fieldwork days recorded above have been carried out in accordance with the geography fieldwork requirements.

Head teacher name:	
Head teacher signature:	Date:

Appendix 6: The context for the development of this qualification

All our qualifications are designed to meet our World Class Qualification Principles[1] and our ambition to put the student at the heart of everything we do.

We have developed and designed this qualification by:

● reviewing other curricula and qualifications to ensure that it is comparable with those taken in high-performing jurisdictions overseas

● consulting with key stakeholders on content and assessment, including learned bodies, subject associations, higher-education academics, teachers and employers to ensure this qualification is suitable for a UK context

● reviewing the legacy qualification and building on its positive attributes.

This qualification has also been developed to meet criteria stipulated by Ofqual in their documents *GCE Qualification Level Conditions and Requirements* and *GCE Subject Level Conditions and Requirements for Geography,* published in March 2015.

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[1] Pearson's World Class Qualification Principles ensure that our qualifications are:

● **demanding**, through internationally benchmarked standards, encouraging deep learning and measuring higher-order skills

● **rigorous**, through setting and maintaining standards over time, developing reliable and valid assessment tasks and processes, and generating confidence in end users of the knowledge, skills and competencies of certified students

● **inclusive**, through conceptualising learning as continuous, recognising that students develop at different rates and have different learning needs, and focusing on progression

● **empowering**, through promoting the development of transferable skills, see *Appendix 7*.

From Pearson's Expert Panel for World Class Qualifications

May 2014

"The reform of the qualifications system in England is a profoundly important change to the education system. Teachers need to know that the new qualifications will assist them in helping their learners make progress in their lives.

When these changes were first proposed we were approached by Pearson to join an 'Expert Panel' that would advise them on the development of the new qualifications.

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 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
- Subjecting the final qualifications to scrutiny against the DfE content and Ofqual accreditation criteria in advance of submission.

Importantly, we have worked to ensure that the content and learning is future oriented. The design has been guided by what is called an 'Efficacy Framework', meaning 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. As a result of our work as a panel we are confident that we have supported the development of 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

Professor Lee Sing Kong

Director, National Institute of Education, Singapore

Bahram Bekhradnia

President, Higher Education Policy Institute

Professor Jonathan Osborne

Stanford University

Dame Sally Coates

Principal, Burlington Danes Academy

Professor Dr Ursula Renold

Federal Institute of Technology, Switzerland

Professor Robin Coningham

Pro-Vice Chancellor, University of Durham

Professor Bob Schwartz

Harvard Graduate School of Education

Dr Peter Hill

Former Chief Executive ACARA

All titles correct as at May 2014

Appendix 7: 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 as the most evidence-based and robust skills framework. We adapted the framework slightly to include the Program for International Student Assessment (PISA) ICT Literacy and Collaborative Problem Solving (CPS) Skills.

The adapted National Research Council's framework of skills involves: [2]

Cognitive skills

- **Non-routine problem solving** – expert thinking, metacognition, creativity.
- **Systems thinking** – decision making and reasoning.
- **Critical thinking** – definitions of critical thinking are broad and usually involve general cognitive skills such as analysing, synthesising and reasoning skills.
- **ICT literacy** – access, manage, integrate, evaluate, construct and communicate. [3]

Interpersonal skills

- **Communication** – active listening, oral communication, written communication, assertive communication and non-verbal communication.
- **Relationship-building skills** – teamwork, trust, intercultural sensitivity, service orientation, self-presentation, social influence, conflict resolution and negotiation.
- **Collaborative problem solving** – establishing and maintaining shared understanding, taking appropriate action, establishing and maintaining team organisation.

Intrapersonal skills

- **Adaptability** – ability and willingness to cope with the uncertain, handling work stress, adapting to different personalities, communication styles and cultures, and physical adaptability to various indoor and outdoor work environments.
- **Self-management and self-development** – ability to work remotely in virtual teams, work autonomously, be self-motivating and self-monitoring, willing and able to acquire new information and skills related to work.
- Transferable skills enable young people to face the demands of further and higher education, as well as the demands of the workplace, and are important in the teaching and learning of this qualification. We will provide teaching and learning materials, developed with stakeholders, to support our qualifications.

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[1] OECD – *Better Skills, Better Jobs, Better Lives* (OECD Publishing, 2012)

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

[3] PISA – *The PISA Framework for Assessment of ICT Literacy* (2011)

Appendix 8: Level 3 Extended Project qualification

What is the Extended Project?

The Extended Project is a standalone qualification that can be taken alongside GCEs. It supports the development of independent learning skills and helps to prepare students for their next step – whether that be university study or employment. The qualification:

- is recognised by universities for the skills it develops
- is worth half of an Advanced GCE qualification at grades A*–E
- carries UCAS points for university entry.

The Extended Project encourages students to develop skills in the following areas: research, critical thinking, extended writing and project management. Students identify and agree a topic area of their choice for in-depth study (which may or may not be related to a GCE subject they are already studying), guided by their teacher.

Students can choose from one of four approaches to produce:

- a dissertation (for example an investigation based on predominately secondary research)
- an investigation/field study (for example a practical experiment)
- a performance (for example in music, drama or sport)
- an artefact (for example creating a sculpture in response to a client brief or solving an engineering problem).

The qualification is non-examination assessment based and students are assessed on the skills of managing, planning and evaluating their project. Students will research their topic, develop skills to review and evaluate the information, and then present the final outcome of their project.

The Extended Project has 120 guided learning hours (GLH) consisting of a 40-GLH taught element that includes teaching the technical skills (for example research skills) and an 80-GLH guided element that includes mentoring students through the project work. The qualification is 100% internally assessed and externally moderated.

How to link the Extended Project with geography

The Extended Project creates the opportunity to develop transferable skills for progression to higher education and to the workplace, through the exploration of either an area of personal interest or a topic of interest from within the geography qualification content.

Through the Extended Project, students will develop skills that support their study of geography, including:

- conducting, organising and using research
- independent reading in the subject area
- planning, project management and time management
- defining a hypothesis to be tested in investigations
- collecting, handling and interpreting data and evidence
- evaluating arguments and processes, including arguments in favour of alternative interpretations of data and evaluation of experimental methodology
- critical thinking.

In the context of the Extended Project, critical thinking refers to the ability to identify and develop arguments for a point of view or hypothesis and to consider and respond to alternative arguments and interpretations of information. This supports the development of evaluative skills, through evaluating geographical data, and using qualitative and quantitative evidence to support informed judgements and propose evidence-based solutions to geographical issues.

Types of Extended Project related to geography

Students may produce a dissertation on any topic that can be researched and argued, for example a controversial geographical issue such as landscape management or public opinion on re-branding or re-imaging of an urban or rural area.

A dissertation might involve an investigation such as:

- the impact of changes to the built environment in a chosen urban or rural area
- an investigation into the success of coastal management approaches in a chosen area.

The dissertation uses secondary research sources to provide a reasoned defence or a point of view, with consideration of alternative interpretations of data and evidence.

An alternative might be an investigative project or field study involving the collection of data from primary research, for example:

- a study of the impact of human activity on a glaciated area
- a survey of historical change in an area.

A field study might consider an issue that lends itself to primary research, for example an investigation into local perceptions of the impact of a regeneration project in a rural or urban area.

Using the Extended Project to support breadth and depth

In the Extended Project, students are assessed on the quality of the work they produce and the skills they develop and demonstrate through completing this work. Students should demonstrate that they have extended themselves in some significant way beyond what they have been studying in geography. Students can demonstrate extension in one or more dimensions:

- ***deepening understanding*** – where a student explores a topic in greater depth than in the specification content. This could be an in-depth exploration of one aspect of one of the synoptic themes specified in the specification
- ***broadening skills*** – where a student learns a new skill. This might be learning a new statistical technique that can be used in the analysis of either primary or secondary data collected by the student
- ***widening perspectives*** – where the student's project spans different subjects. A student studying geography with business may wish to research the impact of tourism on a particular region or locality.

A wide range of information to support the delivery and assessment of the Extended Project, including the specification, teacher guidance for all aspects, an editable scheme of work and exemplars for all four approaches, can be found on our website.

Appendix 9: Codes

Type of code	Use of code	Code
Discount codes	Every qualification eligible for performance tables is assigned a discount code indicating the subject area to which it belongs. Discount codes are published by DfE in the RAISEonline library (www.raiseonline.org).	For Key Stage 4 performance table: RF4 For 16–18 performance table: 3910
Regulated Qualifications Framework (RQF) codes	Each qualification title is allocated an Ofqual Regulated Qualifications Framework (RQF) code. The RQF code is known as a Qualification Number (QN). This is the code that features in the DfE Section 96 and on the LARA as being eligible for 16–18 and 19+ funding, and is to be used for all qualification funding purposes. The QN will appear on students' final certification documentation.	The QN for this qualification is: 601/8416/4
Subject codes	The subject code is used by centres to enter students for a qualification. Centres will need to use the entry codes only when claiming students' qualifications.	AS – 8GE0
Paper codes	These codes are provided for reference purposes. Students do not need to be entered for individual papers.	Paper 1: 8GE0/01 Paper 2: 8GE0/02

Edexcel, BTEC and LCCI qualifications

Edexcel, BTEC and LCCI qualifications are awarded by Pearson, the UK's largest awarding body offering academic and vocational qualifications that are globally recognised and benchmarked. For further information, please visit our qualification website at qualifications.pearson.com. Alternatively, you can get in touch with us using the details on our contact us page at qualifications.pearson.com/contactus

About Pearson

Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working to help people of all ages to make measurable progress in their lives through learning. We put the learner at the centre of everything we do, because wherever learning flourishes, so do people. Find out more about how we can help you and your learners at qualifications.pearson.com

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